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Water Resources Data for Idaho, Water Year 1980
Volume 2: Upper Columbia River Basin and Snake River Basin below King Hill

(U.S.) Geological Survey
Boise, ID

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U.S. Department of Commerce
National Technical Information Service

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DEPARTMENT OF THE INTERIOR
March 3, 1849

Water Resources Data for Idaho

Volume 2. Upper Columbia River Basin and Snake River Basin below King Hill

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT ID-80-2

WATER YEAR 1980

Prepared in cooperation with the State of Idaho
and with other agencies

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U.S. DEPARTMENT OF COMMERCE
SPRINGFIELD, VA 22161

CALENDAR FOR WATER YEAR 1980

1979

OCTOBER

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1980

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28	29	30				

U.S. DEPARTMENT OF THE INTERIOR
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U.S. GEOLOGICAL SURVEY WATER-DATA REPORT ID-80-2

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Prepared in cooperation with the State of Idaho
and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

CECIL D. ANDRUS, Secretary

GEOLOGICAL SURVEY

H. William Menard, Director

For information on the water program in Idaho write to
District Chief, Water Resources Division
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550 West Fort Street
Boise, Idaho 83724

1981

Preface

This report was prepared by personnel of the Idaho district of the Water Resources Division of the U.S. Geological Survey under the supervision of E. F. Hubbard, District Chief, and J. W. Wark, Acting Regional Hydrologist, Western Region. It was done in cooperation with the State of Idaho and with other agencies.

This report is one of a series issued by state. General direction for the series is by Philip Cohen, Chief Hydrologist, U.S. Geological Survey, and R. J. Dingman, Assistant Chief Hydrologist for Scientific Publications and Data Management.

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15. Supplementary Notes

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16. Abstract (Limit: 200 words)

Water resources data for the 1980 water year for Idaho consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground water. This report in two volumes contains discharge records for 192 gaging stations; stage only records for 2 gaging stations; stage only for 11 lakes and reservoirs; contents only for 16 lakes and reservoirs; water quality for 85 gaging stations, 43 partial-record stations, 196 wells, and 5 precipitation sites; and water levels for 366 observation wells. Also included are data for 56 crest-stage partial-record stations. Additional water data were collected at various sites, not involved in the systematic data collection program, and are published as miscellaneous measurements. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in Idaho.

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LETTER AFTER STATION NAME DESIGNATES TYPE OF DATA:
(D) DISCHARGE, (C) CHEMICAL, (B) BIOLOGICAL, (M) MICROBIOLOGICAL,
(T) WATER TEMPERATURE, (E) ELEVATION OR CONTENTS, (S) SEDIMENT

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WATER RESOURCES DATA FOR IDAHO, 1980

INTRODUCTION

Water resources data for the 1980 water year for Idaho consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground water. This report in two volumes contains discharge records for 192 gaging stations; stage only records for 2 gaging stations; stage only for 11 lakes and reservoirs; contents only for 16 lakes and reservoirs; water quality for 85 gaging stations, 43 partial-record stations, 196 wells, and 5 precipitation sites; and water levels for 366 observation wells. Also included are data for 56 crest-stage partial-record stations. Additional water data were collected at various sites, not involved in the systematic data collection program, and are published as miscellaneous measurements. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in Idaho.

Records of discharge or stage of streams, and contents or stage of lakes and reservoirs were first published in a series of U.S. Geological Survey water-supply papers entitled, "Surface Water Supply of the United States." Through September 30, 1960, these water-supply papers were in an annual series and then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperatures, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled, "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1935 to 1974 in a series of water-supply papers entitled, "Ground-Water Levels in the United States." Water-supply papers may be consulted in the libraries of the principal cities in the United States or may be purchased from Branch of Distribution, U.S. Geological Survey, 1200 South Eads Street, Arlington, VA 22202.

For water years 1961 through 1974, streamflow data were released by the Geological Survey in annual reports on a State-boundary basis. Water-quality records for water years 1964 through 1974 were similarly released either in separate reports or in conjunction with streamflow records. Beginning with the 1975 water year, water data for streamflow, water quality, and ground water are published as an official Survey report on a State-boundary basis. These official Survey reports carry an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this report is identified as "U.S. Geological Survey Water-Data Report ID-80-2." Water-Data reports are for sale by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

COOPERATION

The U.S. Geological Survey and organizations of the State of Idaho nave had cooperative agreements for the systematic collection of streamflow records since 1909, for ground-water levels since 1946, and for water-quality records since 1965. Organizations that assisted in collecting data through cooperative agreement with the Survey are:

Idaho Department of Water Resources, C. S. Allred, Director.

Idaho Department of Transportation, Division of Highways,
E. D. Tisdale, P.E., State Highway Administrator.

Bear River Commission, W. N. Jibson, Chairman.

Assistance in the form of funds or services was given by the Bureau of Reclamation, U.S. Department of the Interior, in collecting records for 20 gaging stations; Corps of Engineers, U.S. Army, in collecting records for 22 gaging stations; U.S. Department of State in collecting records for 9 gaging stations and one water-quality station; Environmental Protection Agency in collecting records for 11 water-quality stations; Bonneville Power Administration, U.S. Department of Interior, in collecting records for four gaging stations; Bureau of Land Management, U.S. Department of the Interior, in collecting records for four gaging stations; U.S. Department of Agriculture, Soil Conservation Service, in collecting records for three gaging stations, and Forest Service, in collecting records for one gaging station; and by the Bureau of Indian Affairs, U.S. Department of the Interior, in collecting records for one gaging station published in this report.

The following organizations aided in collecting records:

Water Districts 01, 31, 33, 34, 37, 37N, and 65K; Oakley Canal Co.; Idaho Power Co.; Washington Water Power Co.; Utah Power & Light Co.; and Salmon River Canal Co.

Organizations that supplied data are acknowledged in station descriptions.

ACKNOWLEDGMENTS

Idaho District personnel who contributed significantly to the collection and preparation of the data in this report were: H. A. Ray, Chief, Hydrologic Data Section, assisted by R. W. Harper, C. M. Bennett, S. A. Gutenberger, J. R. Spofford, H. G. Sisco, R. W. Luscombe, E. L. Young, S. C. Cordes, T. K. Edwards, D. K. O'Dell, and L. K. Channel.

HYDROLOGIC CONDITIONS

Streamflow in October was in the deficient range in the northern, central, and southwestern river basins. Winter flow continued to be deficient in the Salmon River basin and reached the median range in the Clearwater, Coeur d'Alene, Weiser, and Kootenai River basins. Seasonal runoff brought most other streams into the median range for the remainder of the year.

On October 1, 1980, total storage in the Boise and Payette River basins was 1,318,000 acre-feet, compared with 780,000 acre-feet a year ago, and 1,125,230 acre-feet for the 1969-78 average. Total storage for power in Dworshak Reservoir and Pend Oreille and Coeur d'Alene Lakes was above average at the end of the water year.

Monthly and annual mean discharge are compared with median discharge at two representative gaging stations in figure 4.

Changes in ground-water levels from spring 1979 to spring 1980 in selected observation wells are shown in figure 1. These wells were selected to monitor long-term changes in water levels in different areas of Idaho.

Water levels in the Rathdrum Prairie in north Idaho (fig. 18), declined 0.5 to 1.4 feet. In north-central Idaho (fig. 19), water levels were generally unchanged.

Water levels in the Payette River valley in west-central Idaho (fig. 20) were unchanged. Water levels in the Weiser River valley were generally unchanged, although a slight long-term downward trend is apparent. Near Crane Creek Reservoir, however, water levels declined about 5 feet. Water levels in the Salmon and Lemhi River valleys in east-central Idaho (fig. 21) showed no significant change. Water levels were 0.3 foot lower in the upper part of the Pahsimeroi Valley and 0.1 foot lower near the mouth of the valley.

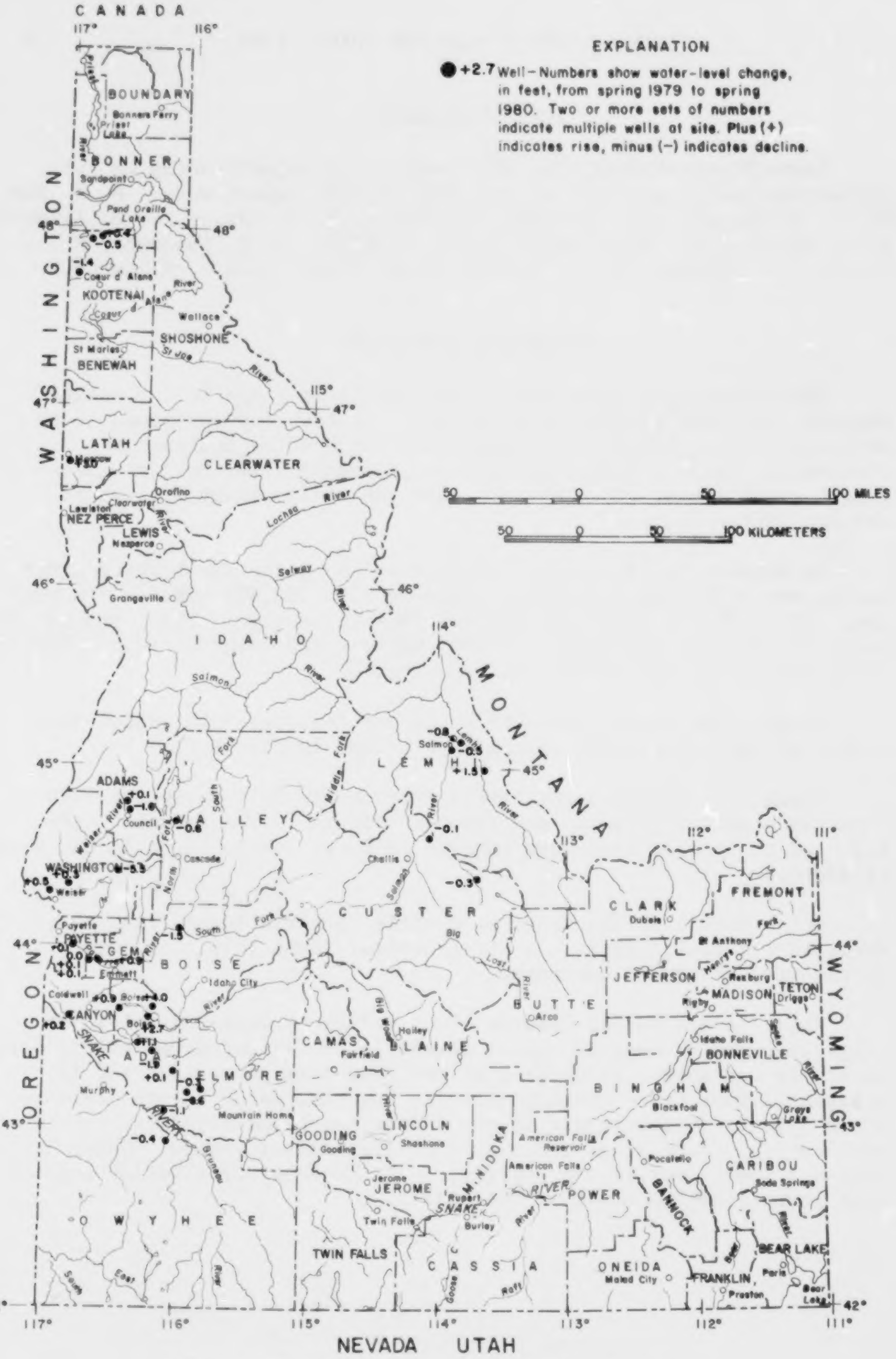

Figure 1.-- Water level changes in selected observation wells.

In Boise Valley of southwest Idaho (fig. 22), water levels in the shallow aquifer, which is recharged largely from infiltration of water in unlined irrigation canals and ditches, rose 0.2 to 2.7 feet. In areas where ground water is extensively withdrawn from the deep aquifer for irrigation, water levels showed a slight rising trend and were about 0.5 foot higher. In areas of ground-water development on the Mountain Home plateau, water levels continued their long-term decline and were 0.3 to 6.6 feet lower than in spring 1979. In the area south of the Snake River between Bruneau and Grand View, water levels that began a slight rise in 1978 were about 0.4 foot higher since spring 1979.

DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report are defined below. See also the table for converting English units to International System of units (SI) on the inside back cover.

Acre-foot (ac-ft,AC-FT) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Adenosine triphosphate (ATP) is the primary energy donor in cellular life process. Its central role in living cells makes it an excellent indicator of the presence of living material in water. A measure of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter of the original water sample.

Algae are mostly aquatic single-celled, colonial, or multicelled plants, containing chlorophyll and lacking roots, stems, and leaves.

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer, tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rod-like, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as all the organisms which produce colonies within 24 hours when incubated at 35°C ± 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 ml of sample.

Fecal coliform bacteria are bacteria that are present in the intestine or feces of warmblooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms which produce blue colonies within 24 hours when incubated at 44.5°C ± 0.2°C on m-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 ml of sample.

Fecal streptococcal bacteria are bacteria found also in the intestine of warmblooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C ± 1.0°C on M-enterrococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 ml of sample.

Bed material is the unconsolidated material of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per litre, necessary for the decomposition of organic matter by microorganisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the weight per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m^3), and periphyton and benthic organisms in grams per square meter (g/m^2).

Dry mass refers to the weight of residue present after drying in an oven at 60°C for zooplankton and 105°C for periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and ash mass, and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash mass and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Recoverable from bottom material the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of only readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Total in bottom material the total amount of a given constituent in a representative sample of bottom material. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total in bottom material."

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

Cfs-day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, or about 646,000 gallons or 2,447 cubic meters.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water, and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common green pigments in plants.

Color unit is produced by one milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Control structure as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of salt water.

Cubic feet per second per square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Cubic foot per second (FT^3/s, ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second, and is equivalent to 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Discharge is the volume of water (or more broadly, total fluids) that passes a given point within a given period of time.

Mean discharge is the arithmetic mean of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant of time.

Dissolved that material in a representative water sample which passes through a 0.45-micrometer membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Diversity index is a numerical expression of evenness of distribution of aquatic organisms. The formula for diversity index is:

$$\overline{d} = -\sum_{i=1}^{s} \frac{n_i}{n} \log_2 \frac{n_i}{n}$$

Where n_i is the number of individuals per taxon, n is the total number of individuals, and s is the total number of taxa in the sample of the community. Diversity index values range from zero, when all the organisms in the sample are the same, to some positive number, when some or all of the organisms in the sample are different.

Drainage area of a stream at a specific location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the river above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise noted.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate ($CaCO_3$).

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an 8-digit number.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

Methylene blue active substance (MBAS) is a measure of apparent detergents. This determination depends on the formation of a blue color when methylene blue dye reacts with synthetic detergent compounds.

Micrograms per gram (ug/g) is a unit expressing the concentration of a chemical element as the mass (micrograms) of the element sorbed per unit mass (gram) of sediment.

Micrograms per liter (UG/L,ug/l) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (MG/L,mg/l) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represents the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/l, and is based on the mass of sediment per liter of water-sediment mixture.

National Geodetic Vertical Datum of 1929 (NGVD) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Seal Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

Organism is any living entity, such as an insect, phytoplankter, or zooplankter.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meters (m^2), acres, or hectares. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliters (mL) or liters (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Partial-record station is a particular site where limited streamflow and/or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of suspended sediment or bed material determined either by sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay..........	0.00024 - 0.004	Sedimentation.
Silt..........	.004 - .062	Sedimentation.
Sand..........	.062 - 2.0	Sedimentation or sieve.
Gravel........	2.0 - 64.0	Sieve.

The particle size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native-water analysis.

Percent composition is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, mass, or volume.

Periphyton is the assemblage of microorganisms attached to and growing upon solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms.

Pesticides are chemical compounds used to control undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Insecticides and herbicides, which control insects and plants respectively, are the two categories reported.

Picocurie (PC,pCi) is one trillionth (1×10^{12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioacitivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Phytoplankton in the plant of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment, and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells/mL of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algal mats or floating "moss" in lakes. Their concentrations are expressed as number of cells/mL of sample.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column, and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

Polychlorinated biphenyls (PCBs) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Primary production is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic and chemosynthetic activity of producer organisms (chiefly green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated by the plants (carbon method).

Milligrams of carbon per area or volume per unit time [mg $C/(m^2\cdot$time for periphyton and macrophytes and mg $C/(m^3\cdot$time)] for phytoplankton are units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactive carbon (carbon-14). The carbon-14 method is of greater sensitivity than the oxygen light and dark bottle method, and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time [mg $O_2/(m^2\cdot$time) for periphyton and macrophytes and mg $O_2/(m^3\cdot$time)] for phytoplankton are the units for expressing primary productivity. They define production and respiration rates as estimated from changes in the measured dissolved oxygen concentration. The oxygen light and dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.

Runoff in inches (IN,in) shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

Sediment is solid material that originates mostly from disintegrated rocks and is transformed by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Suspended, recoverable the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45-micrometer membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Suspended-sediment discharge (tons/day) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight, or by volume, that passes a section in a given time. It is computed by multiplying discharge times mg/L times 0.0027.

Suspended-sediment load is quantity of suspended sediment passing a section in a specified period.

Suspended, total the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45-micrometer membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Total the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determines all of the constituent in the sample.)

Total, recoverable the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures would be required of all laboratores performing such analyses because different digestion procedures are likely to produce different analytical results.

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bedload discharge. It is the total quantity of sediment, as measured by dry weight or volume, that passes a section during a given time.

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Sodium-adsorption-ratio (SAR) is the expression of relative activity of sodium ions in exchange reaction with soil and is an index of sodium or alkali hazard to the soil. This ratio should be known especially for water used for irrigating farmland.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in micromhos per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height (stage) and volume of water per unit of time, flowing in a channel.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lives.

Natural substrates refers to any naturally occurring emersed or submersed solid surface, such as a rock or tree, upon which an organism lives.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization of organisms. The use of artificial substrates simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multiplate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection.

Surface area of a lake is that area outlined on the latest USGS topographic map as the boundary of the lake and measured by a planimeter in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimetered. All areas shown are those for the stage when the planimetered map was made.

Surficial bed material is that part (0.1 to 0.2 ft) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of the total concentration in a water-sediment mixture. The water-sediment mixture is associated with (or sorbed on) that material retained on a 0.45 micrometer filter.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, *Hexagenia limbata*, is the following:

Kingdom	Animal
Phylum	Arthropoda
Class	Insecta
Order	Ephemeroptera
Family	Ephemeridae
Genus	*Hexagenia*
Species	*Hexagenia limbata*

Thermograph is an instrument that continuously records variations of temperature on a chart. The more general term "temperature recorder" is used in the table headings and refers to any instrument that records temperature whether on a chart, a tape, or any other medium.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the water year.

Tons per acre-foot indicates the dry weight of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration in milligrams per liter by 0.00136.

Tons per day is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour day.

Total load (tons) is the total quantity of any individual constituent, as measured by dry mass or volume, that is dissolved in a specific amount of water (discharge) during a given time. It is computed by multiplying the total discharge, times the mg/L of the constituent, times the factor 0.0027, times the number of days.

Water year in Geological Survey reports dealing with surface-water supply is the 12-month period, October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1979, is called the "1979 water year."

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

WDR is used as an abbreviation for "Water-Data Report" in the REVISED RECORDS paragraph to refer to State annual basic-data reports (WRD was used as an abbreviation for "Water-Resources Data" in reports published prior to 1976).

WSP is used as an abbreviation for "Water-Supply Paper" in references to previously published reports.

DOWNSTREAM ORDER AND STATION NUMBER

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a main-stream station are listed before that station. A station on a tributary that enters between two main-stream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary on which a station is situated with respect to the stream to which it is immediately tributary is indicated by an indention in a list of stations in the front of the report. Each indention represents one rank. This downstream order and system of indention show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete 8-digit number for each station such as 13317000, which appears just to the left of the station name, includes the 2-digit part number "13" plus the 6-digit downstream order number "317000."

NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

The 8-digit downstream order station numbers are not assigned to wells and miscellaneous sites where only random water-quality samples or discharge measurements are taken.

The well and miscellaneous site numbering system of the U.S. Geological Survey is based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, the next 7 digits denote degrees, minutes, and seconds of longitude, and the last 2 digits (assigned sequentially) identify the wells or other sites within a 1-second grid. See figure 2 below.

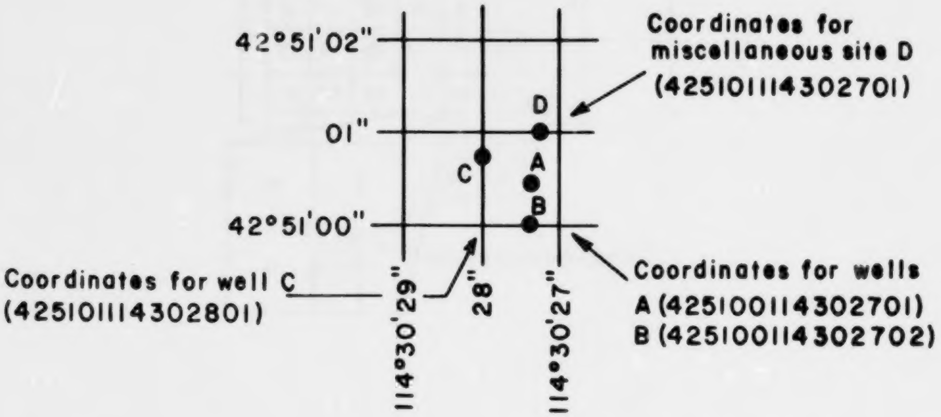

Figure 2.--System for numbering wells and miscellaneous sites (latitude and longitude).

Idaho Well-Numbering System

The well-numbering system used by the Geological Survey in Idaho indicates the location of wells within the official rectangular subdivisions of the public lands, with reference to the Boise base line and meridian. The first segment of a well number indicates the township, the seond the range, and the third the section in which the well is situated. The letters following the section number indicate the well location within the section: The first letter denotes the 160-acre (65-hm^2) tract, the second the 40-acre (16-hm^2) tract, the third the 10-acre (4.0-hm^2) tract in which the well occurs. The letters are assigned in a counterclockwise direction, beginning in the northeast quarter (fig. 3). The last numberal is a serial number assigned when the well is inventoried. Thus, well 53N-04W-28CABL is in the NW¼NE¼SW¼ sec. 28, T. 53 N., R. 4 E., and is the first well inventoried in that tract.

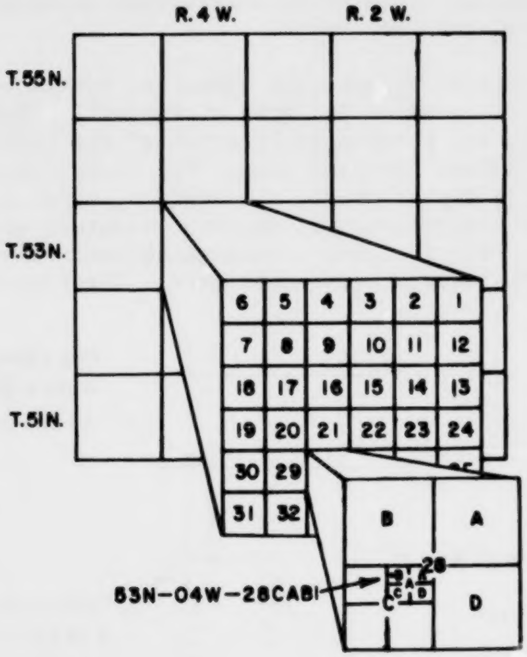

Figure 3.--Diagram showing Idaho well-numbering system.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

National stream-quality accounting network (NASQAN) is a data collection network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated in the network design. Areal configuration of the network is based on river-basin accounting units designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are (1) to depict areal variability of streamflow and water-quality conditions nationwide on a year-to-year basis and (2) to detect and assess long-term changes in streamflow and stream quality.

Pesticide program is a network of regularly sampled water-quality stations where samples are collected to determine the concentration and distribution of pesticides in streams where potential contamination could result from the application of the commonly used insecticides and herbicides. Operation of the network is a Federal interagency activity.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Tritium network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

EXPLANATION OF STAGE AND WATER-DISCHARGE RECORDS

Collection and Computation of Data

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and contents of lakes and reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from either direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at selected intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey. These methods are described in standard textbooks, in Water-Supply Paper 888, and in U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6.

For stream-gaging stations, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves. If extensions to the rating curves are necessary to express discharge greater than measured, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, or computation of flow over dams or weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and the yearly mean discharge are computed from the daily figures. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is computed by the shifting-control method, in which correction factors based on individual discharge measurements and notes by engineers and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

At some stream-gaging stations, the stage-discharge relation is affected by the backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations, the stage-discharge relation is affected by changing stage; at these stations, the rate of change in stage is used as a factor in computing discharge.

At some gaging stations, the stage-discharge relation is affected by ice during the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of the gage-height record and occasional winter discharge measurements. Consideration is given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys, the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some gaging stations, there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute the daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated on the basis of recorded range in stage, prior and subsequent records, discharge measurements, weather records, and comparison with records for other stations in the same or nearby basins. Likewise, daily contents may be estimated on the basis of operator's log, prior and subsequent records, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulations of daily and monthly figures. For gaging stations on streams or canals, a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs, a monthly summary table of stage and contents or a table showing the daily contents is given. Tables of daily mean gage heights are included for some streamflow stations and for some reservoir stations. Records are published for the water year, which begins on October 1 and ends on September 30.

The description of the gaging station gives the location, drainage area, period of record, notations of revisions of previously published records, type and history of gages, general remarks, average discharge, and extremes of discharge or contents. The location of the gaging station and the drainage area are obtained from the most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD."

Previously published streamflow records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISED RECORDS" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years, only one number is given; for instance, 1965 stands for the water year October 1, 1964, to September 30, 1965. If no daily, monthly, or annual figures of discharge are affected by the revision, the fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given. It should be noted that for all stations for which cubic feet per second per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches resulting from a revision of the drainage area only are usually not published in the annual series of reports.

The type of gage currently in use, the datum of the present gage above mean sea level, and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." In references to datum of gages, the phrase "mean sea level" denotes "Sea Level Datum of 1929" as used by the Topographic Division of the Geological Survey, unless otherwise qualified.

Information pertaining to the accuracy of the discharge records and to conditions which affect the natural flow of the gaging station is given under "REMARKS." For reservoir stations, information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir is given under "REMARKS."

The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE;" it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. Under "EXTREMES" are given first, the extremes for the period of record, second, information available outside the period of record, and last, those for the current year. Unless otherwise qualified, the maximum discharge (or contents) is the instantaneous maximum corresponding to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur at the same time as the maximum discharge (or contents). it is given separately. Similarly, the minimum is the instantaneous minimum unless otherwise qualified. For some stations, peak discharges are listed with EXTREMES FOR THE CURRENT YEAR; if they are, all independent peaks, including the maximum for the year, above the selected base with the time of occurrence and corresponding gage heights are published in tabular format. The base discharge, which is given in the table heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330. The minimums for these stations are published in a separate paragraph following the table of peaks.

Skeleton rating tables are published, immediately following EXTREMES, for stream-gaging stations where they serve a useful purpose and the dates of applicability can be easily identified.

The daily table for stream-gaging stations gives the mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also may be expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN") or in acre-feet (line headed "AC-FT"). Figures of cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion, if the drainage area includes large noncontributing areas, or if the average annual rainfall over the drainage basin is usually less than 20 inches. In the yearly summary below the monthly summary, the figures shown are appropriate daily discharges for the calendar and water years.

Footnotes to the table of daily discharge are introduced by the word "NOTE." Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-discharge relation, or of any other unusual condition at the gage are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs.

For most gaging stations on lakes and reservoirs, the data presented comprise a description of the station and a monthly summary table of stage and contents. For some reservoirs, a table showing daily contents or stage is given. A skeleton table of capacity at given stages is published for all reservoirs for which records are published on a daily basis, but is not published for reservoirs for which only monthly data are given.

Data collected at partial-record stations follow the information for continuous record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations.

The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. Occasionally, a series of discharge measurements are made within a short time period to investigate the seepage gains or losses along a reach of a stream or to determine the low-flow characteristics of an area. Such measurements are also given in special tables following the tables of partial-record stations.

Accuracy of Field Data and Computed Results

The accuracy of streamflow data depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements and (2) the accuracy of observations of stage, measurements of discharge, and interpretation of records.

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges is within 5 percent; "good" within 10 percent; and "fair" within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 ft^3/s; to tenths between 1.0 and 10 ft^3/s; to whole numbers between 10 and 1,000 ft^3/s; and to three significant figures above 1,000 ft^3/s. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or other factors. For such stations, figures of cubic feet per second per square mile and of runoff in inches are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Other Data Available

Information of a more detailed nature than that published for most of the gaging stations such as observations of water temperatures, discharge measurements, gage-height records, and rating tables is on file in the district office. Also most gaging-station records are available in computer-usable form and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the district office.

Records of Discharge Collected by Agencies other than the Geological Survey

Records of discharge not published by the Geological Survey were collected in the current water year by other State and Federal agencies. The National Water Data Exchange, Water Resources Division, U.S. Geological Survey, National Center, Reston, VA 22092, maintains an index of such sites. Information on records available at specific sites can be obtained upon request.

EXPLANATION OF WATER-QUALITY RECORDS

Collection and Examination of Data

Surface-water samples for analyses usually are collected at or near gaging stations. The quality-of-water records are given immediately following the discharge records at these stations.

The descriptive heading for water-quality records gives the period of daily record for parameters that are measured on a daily basis (specific conductance, pH, dissolved oxygen, water temperature, sediment discharge, etc.); extremes for the period of daily record; extremes for the current year; and general remarks.

For ground-water records, no descriptive statements are given; however, the well number, depth of well, date of sampling and/or other pertinent data are given in the table containing the chemical analyses of the ground water.

Water Analysis

Most methods for collecting and analyzing water samples are described in the U.S. Geological Survey Techniques of Water-Resources Investigations listed on a following page.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the district office.

Water Temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for surface-water stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross sections.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided day method. For periods when no samples were collected, daily loads of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of the quantities of suspended sediment, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included.

EXPLANATION OF GROUND-WATER LEVEL RECORDS

Collection of the Data

Ground-water level data from the Statewide network of observation wells are published herein. This network is designed so that the fewest number of wells are used to obtain the most significant data in the most important aquifers.

Each well is identified by means of (1) a 15-digit number that is based on latitude and longitude and (2) a local number that is provided for local needs. See figure 2.

Measurements are made in many types of wells under varying conditions of access and at different temperatures, hence, neither the method of measurement nor the equipment can be standardized. At each observation well, however, the equipment and techniques used are those that will ensure that measurements at each well are consistent.

Water-level measurements in this report are given in feet with reference to either National Geodetic Vertical Datum of 1929 (NGVD) or land-surface datum (lsd). Mean sea level is the datum plane on which the national network of precise levels is based; land-surface datum is a datum plane that is approximately at land surface at each well. If known, the altitude of the land-surface datum above mean sea level is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported for every fifth day and the end of each month (eom).

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error of determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water, the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot.

Aquifer Names

The names of aquifers and their geologic ages adopted for use in Idaho are from the stratigraphic names listed in the Idaho section of the U.S. Geological Survey Bulletins 1056-B, 1200, and 1395-A. Names will be modified where necessary as official changes in stratigraphic nomenclature occur.

If a formal name has not been assigned to the aquifer, the lithology and its age are used to designate the water-bearing unit. Although some wells are supplied by more than one aquifer, only the major aquifer penetrated by the well is given in the well description.

Well Descriptions

For each well, the well description includes, if available, the following information: Latitude-longitude number, Idaho well number, owner, method of construction, use of well, type of well (artesian or water table), formal aquifer name or lithology and geologic age, diameter of casing, depth of well, depth of perforations or screen, altitude of land-surface datum, remarks of unusual conditions affecting the water level, acknowledgment of outside persons or agencies contributing data, and a description of the measuring point. The depth of the well at the time it was originally inventoried is given in the well description. If the well has been deepened or filled in, the new depth and date the change was discovered are noted following the notation of land-surface datum.

When a well is added to the State observation-well network, all its prior water-level measurements are included with the current year tabulation.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

Thirty-four manuals by the U.S. Geological Survey have been published to date in the series on techniques describing procedures for planning and executing specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) is on surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises. The reports listed below are for sale by the U.S. Geological Survey, Branch of Distribution, 1200 South Eads Street, Arlington, VA 22202 (authorized agent of the Superintendent of Documents, Government Printing Office).

NOTE: When ordering any of these publications, please give the title, book number, chapter number. and "U.S. Geological Survey Techniques of Water-Resources Investigations".

1-D1. *Water temperature--influential factors, field measurement, and data presentation*, by H. H. Stevens.Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.

1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.

2-D1. *Application of surface geophysics to ground-water investigations*, by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.

2-E1. *Application of borehole geophysics to water-resources investigations*, by W. S. Keys and L. M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.

3-A1. *General field and office procedures for indirect discharge measurements*, by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.

3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.

3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.

3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages.

3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages.

3-A6. *General procedure for gaging streams*, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.

3-A7. *Stage measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.

3-A8. *Discharge measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages.

3-A11. *Measurement of discharge by moving-boat method*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.

3-B1. *Aquifer-test design, observation, and data analysis*, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.

3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction*, by G. D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages.

3-C1. *Fluvial sediment concepts*, by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.

3-C2. *Field methods for measurement of fluvial sediment*, by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.

3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.

4-A1. *Some statistical tools in hydrology*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.

4-A2. *Frequency curves*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.

4-B1. *Low-flow investigations*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.

4-B2. *Storage analyses for water supply*, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.

4-B3. *Regional analyses of streamflow characteristics*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.

4-D1. *Computation of rate and volume of stream depletion by wells*, by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.

5-A1. *Methods for determination of inorganic substances in water and fluvial sediments*, by M. W. Skougstad and others, editors: USGS--TWRI Book 5, Chapter A1. 1979. 626 pages.

5-A2. *Determination of minor elements in water by emission spectroscopy*, by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.

5-A3. *Methods for analysis of organic substances in water*, by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages.

5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, edited by P. E. Greeson, T. A. Ehlke, G. A. Irwin, B. W. Lium, and K. V. Slack: USGS--TWRI Book 5, Chapter A4. 1977. 332 pages.

5-A5. *Methods for determination of radioactive substances in water and fluvial sediments*, by L. L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages.

5-C1. *Laboratory theory and methods for sediment analysis*, by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.

7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.

7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water*, by L. F. Konikow and J. D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.

8-A1. *Methods of measuring water levels in deep wells*, by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages.

8-B2. *Calibration and maintenance of vertical-axis type current meters*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.

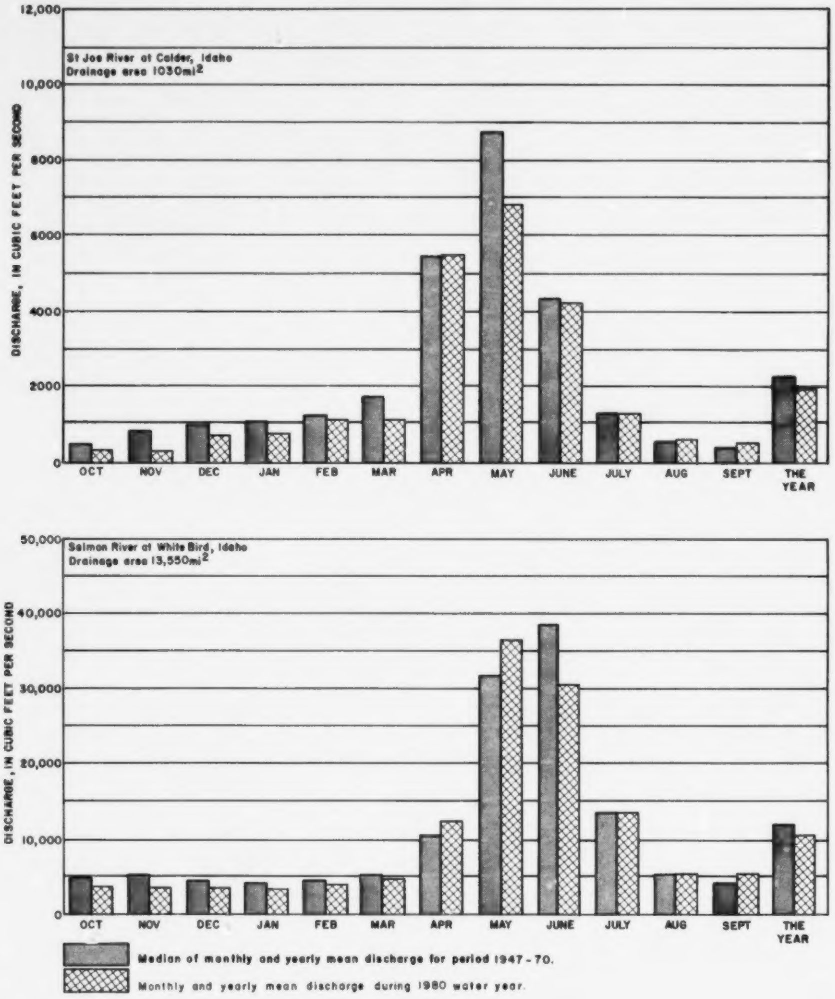

FIGURE 4.--Discharge during 1980 water year compared with median discharge for period 1941-70 for two representative gaging stations.

EXPLANATION

PART 13

River basin boundary and number

321500 ▲

Gaging station and number

Inverted symbol indicates water-quality station

▼

Chemical-measurement site

▼

Temperature-measurement site

▼

Biological-measurement site

▼

Sediment-measurement site

▲

Crest-stage measurement site

51N-04W-18

●

Observation well and number

This explanation is for all 10 maps in this volume. Shaded areas on figures 7 and 8 indicate areas of detailed study. Data for these areas are listed in this report, but individual collection sites are not shown.

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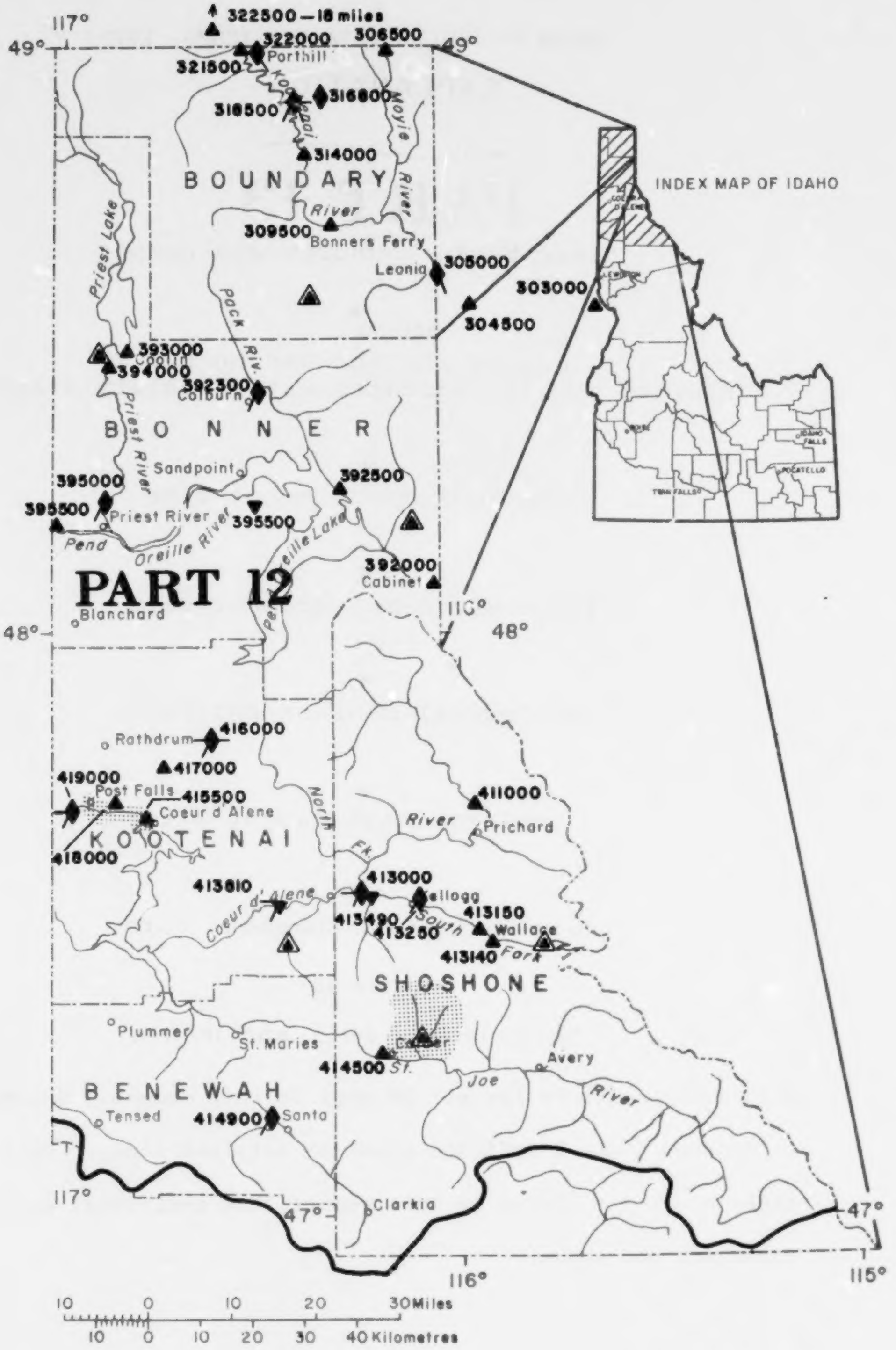

FIGURE 5.--Location of surface-water and water-quality stations in north Idaho.

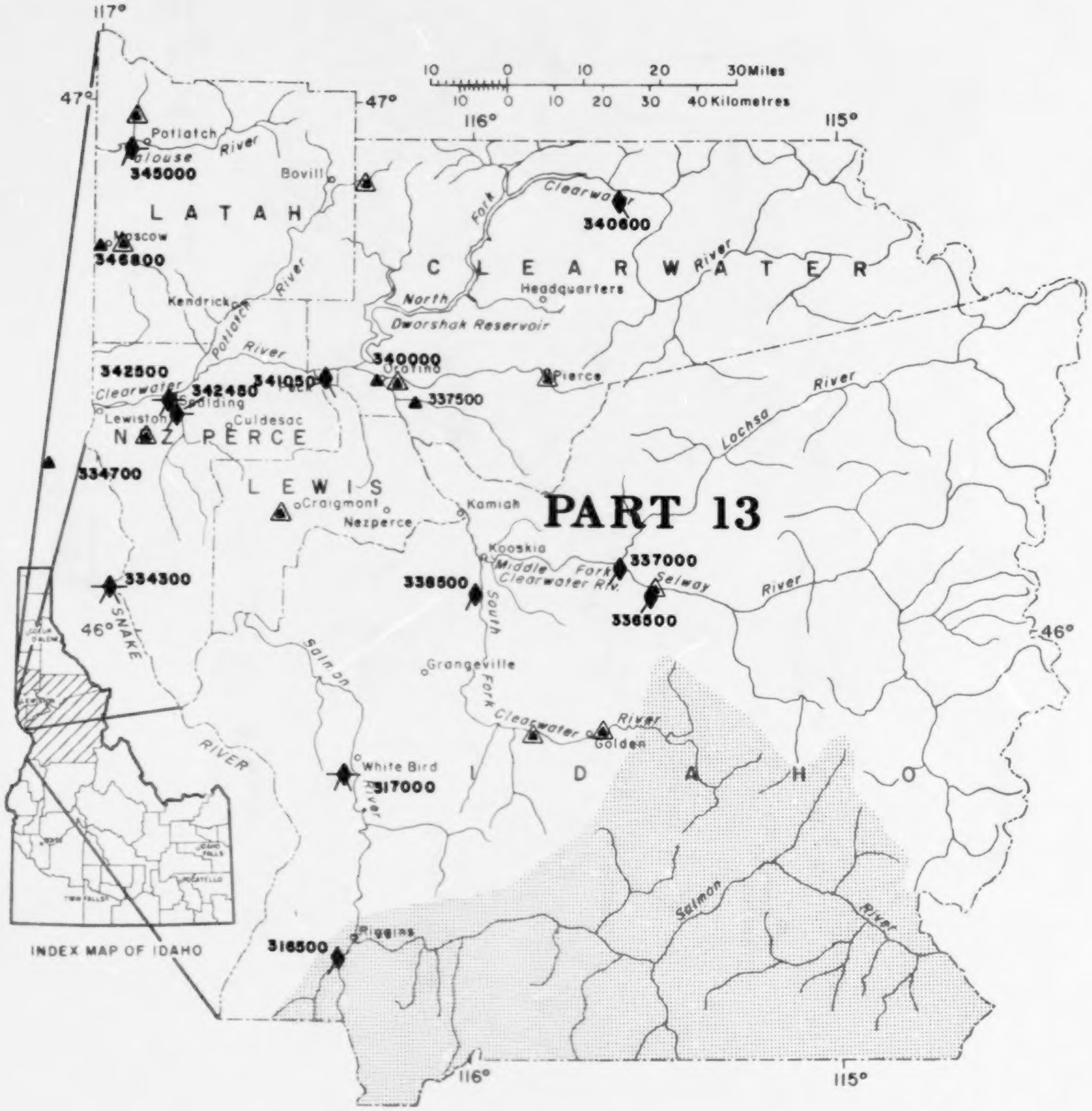

FIGURE 6.--Location of surface-water and water-quality stations in north-central Idaho.

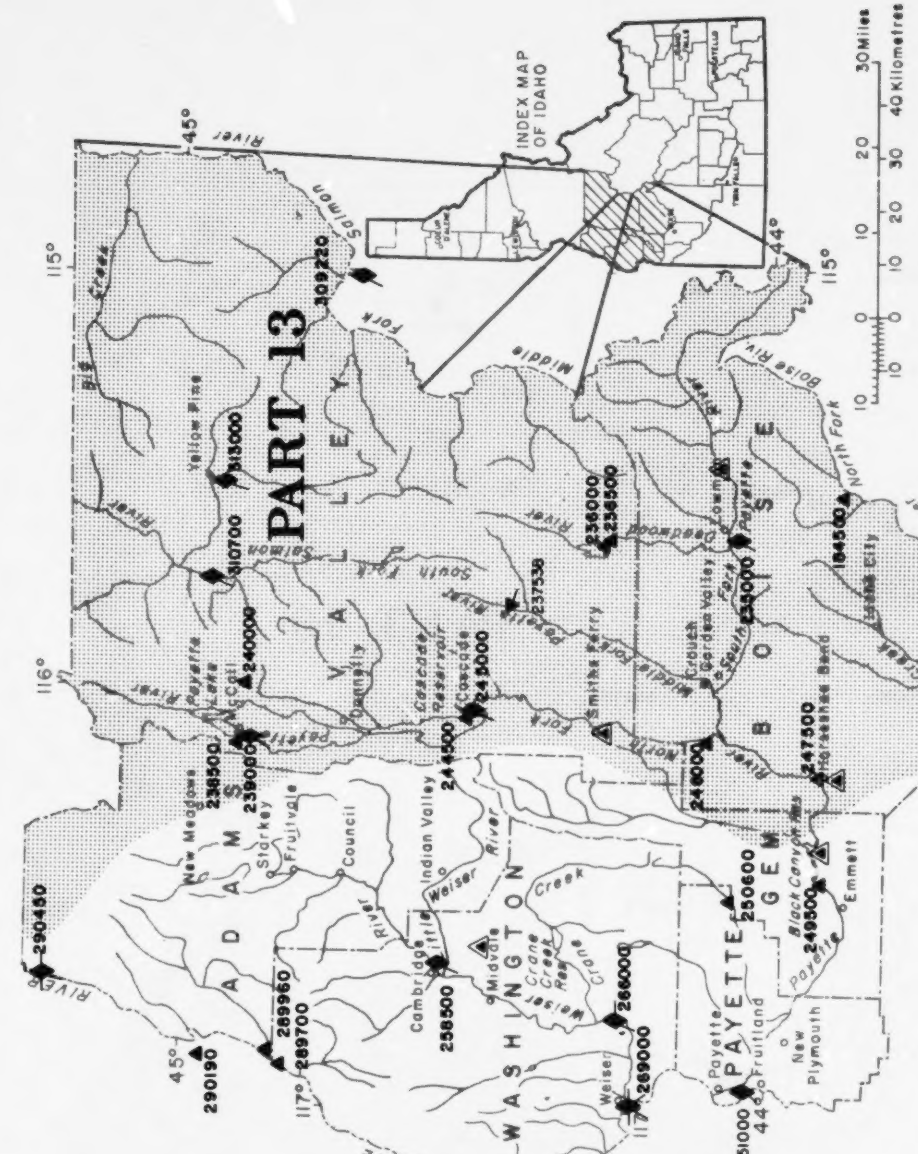

FIGURE 7.--Location of surface-water and water-quality stations in west-central Idaho.

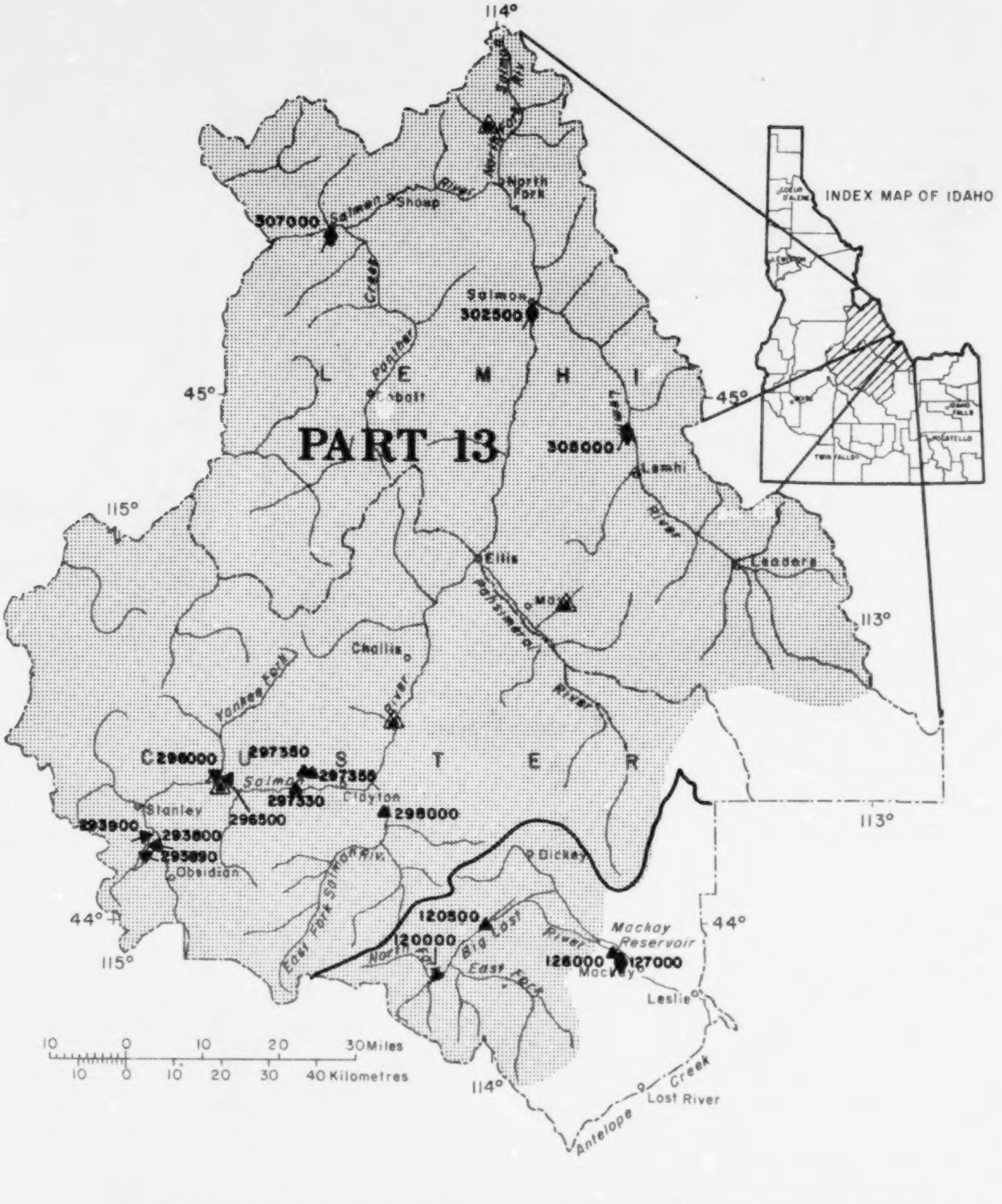

FIGURE 8.--Location of surface-water and water-quality stations in east-central Idaho.

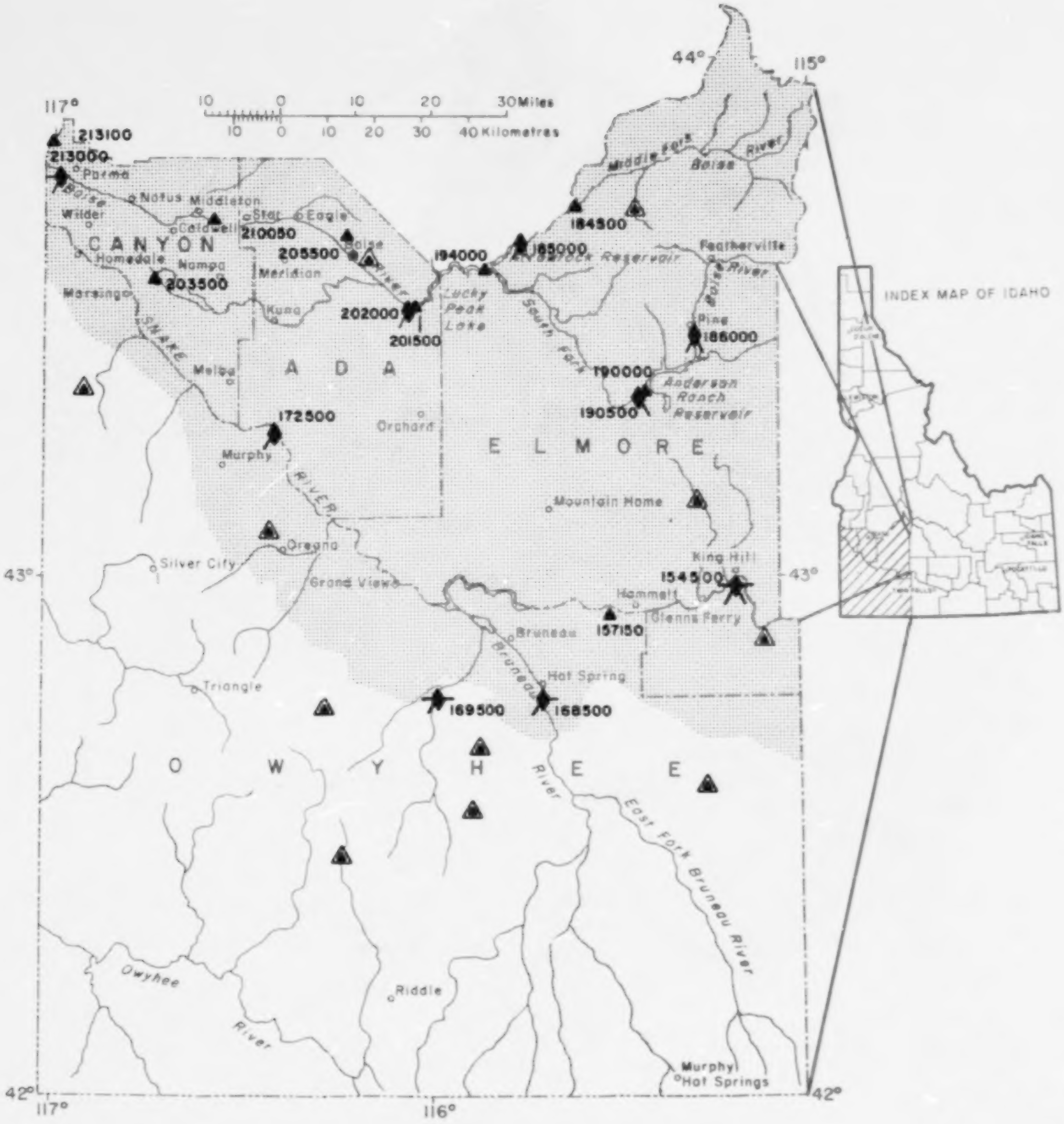

FIGURE 9.--Location of surface-water and water-quality stations in southwest Idaho.

KOOTENAI RIVER BASIN

12303000 KOOTENAI RIVER AT LIBBY, MT

LOCATION.--Lat 48°24'03", long 115°33'08", in SW¼SE¼SW¼ sec.34, T.31 N., R.31 W., Lincoln County, Hydrologic Unit 17010101, on right bank 1,800 ft (550 m) downstream from highway bridge at Libby, 0.8 mi (1.3 km) downstream from Libby Creek, and at mile 204.3 (328.7 km).

DRAINAGE AREA.--10,240 mi² (26,520 km²), approximately.

PERIOD OF RECORD.--October 1910 to current year. Monthly discharge only for some periods, published in WSP 1316.

REVISED RECORDS.--WSP 1042: 1933. WSP 1246: 1912(M), 1915(M), 1916, 1918-19(M), 1924-27(M).

GAGE.--Water-stage recorder. Datum of gage is 2,041.54 ft (622.261 m) National Geodetic Vertical Datum of 1929. Prior to Apr. 28, 1931, nonrecording gages at site 1,800 ft (550 m) upstream at different datum.

REMARKS.--Records excellent except those for below 10,000 ft³/s (283 m³/s), which are good. Flow regulated by Lake Koocanusa since Mar. 21, 1972. Diversions for irrigation of about 14,500 acres (58.7 km²) from tributaries above station in Canada and the United States.

AVERAGE DISCHARGE.--70 years, 12,120 ft³/s (343.2 m³/s), 16.07 in/yr (408 mm/yr), 8,781,000 acre-ft/yr (10.8 km³/yr), adjusted for change in contents in Lake Koocanusa since Mar. 21, 1972.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 121,000 ft³/s (3,430 m³/s) June 21, 1916, gage height, 20.7 ft (6.31 m), present datum, derived from gage-relation study; minimum observed, 895 ft³/s (25.3 m³/s) Jan. 11, 1930 (result of discharge measurement).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 32,000 ft³/s (906 m³/s) June 19, gage height, 9.24 ft (2.816 m); minimum daily, 3,250 ft³/s (92.0 m³/s) Oct. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7960	20200	21200	4450	14500	4820	3660	6380	5310	9310	9870	4290
2	9020	20800	21300	4450	5940	4820	3660	6380	5900	6770	5080	5530
3	8290	14100	19100	8600	4450	4820	3660	6560	6120	4930	4330	5150
4	8210	14100	21100	8230	6410	4800	3680	6380	6580	4870	7890	5020
5	9200	16800	21400	4520	4520	4730	3740	6310	6360	4850	9080	6190
6	9750	21100	21500	4410	4470	4670	3840	6330	7610	4820	9410	7610
7	3250	21200	21400	14600	9580	4710	3880	6230	9810	6850	9500	6630
8	11000	21400	21100	15700	10800	4670	3900	5840	9810	13300	9360	11700
9	7860	21500	21100	15700	5550	4650	3900	5750	16600	14600	5200	12800
10	7690	21500	21200	15800	4470	4620	3960	5940	21300	14200	4340	12500
11	9820	11500	21300	15500	9640	4350	3920	5630	21400	14800	8050	12600
12	12400	21400	17500	6820	10800	3620	3920	5360	21300	11200	8320	11200
13	20000	20900	21000	4600	10700	3540	4000	5130	19400	13600	8260	5910
14	20100	21200	20800	13000	13600	3640	4200	5070	11600	16100	8230	4350
15	13700	22000	20800	14700	18700	3600	4650	4990	7350	14700	8220	3880
16	13400	22200	20600	12500	6460	3580	4930	5010	14100	13900	5100	6460
17	18100	22200	20800	12400	4390	4220	5040	4990	20800	15100	4290	4360
18	14900	21600	20900	12400	5770	4980	5530	4960	24000	14700	8250	4350
19	17300	22000	21000	8200	6310	4520	6080	5010	29200	8490	9830	4370
20	19200	16300	21000	4410	4430	3560	6580	5020	31000	4960	12000	4670
21	13800	22000	15000	10400	4430	3560	6950	5180	30600	12800	12100	5660
22	12700	14800	6740	8480	4450	3560	7020	5190	30100	15100	11200	11300
23	14000	16400	4690	12300	4430	3600	6970	4940	29800	15500	10600	7590
24	14100	21800	4670	12100	4410	3620	7700	4660	28300	11600	5480	4490
25	20500	21900	4620	12200	5300	3620	7890	4610	20400	9730	5610	11800
26	14400	21800	8830	8160	4430	4240	7240	5570	20300	6630	5250	13000
27	13700	21500	4620	18500	4470	4950	7340	5780	13200	4410	4850	10100
28	12000	21400	6660	19100	4670	4500	7560	5350	9260	8790	7660	5380
29	11500	21400	6080	19400	4800	3660	7810	5120	9310	12800	10800	11100
30	19000	21400	4500	19300	---	3700	7210	5050	9310	14200	9600	12900
31	20600	---	4470	19200	---	3700	---	5090	---	14200	5540	---
TOTAL	407450	598400	487180	356210	203080	129630	160420	169810	496130	337810	243300	232910
MEAN	13140	19950	15720	11490	7003	4182	5347	5478	16540	10900	7848	7764
MAX	20600	22200	21500	19400	18700	4980	7890	6560	31000	16100	12100	13000
MIN	3250	11500	4470	4410	4390	3540	3660	4610	5310	4410	4290	3880
AC-FT	808200	1187000	966300	706500	402800	257100	318200	336800	984100	670000	482600	462000
MEAN†	3728	3596	4054	2350	2848	3303	13970	40510	30820	12690	7751	6168
CFSM†	.36	.35	.40	.23	.28	.32	1.36	3.96	3.01	1.24	.76	.60
IN†	.42	.39	.46	.26	.30	.37	1.52	4.56	3.36	1.43	.87	.67
AC-FT†	229200	214000	249300	144500	163800	203100	831200	2490800	1834100	780000	476600	367000

CAL YR 1979	TOTAL	3331320	MEAN	9127	MAX	22200	MIN 3110	AC-FT	6608000
WTR YR 1980	TOTAL	3822330	MEAN	10440	MAX	31000	MIN 3250	AC-FT	7582000
CAL YR 1979†	TOTAL	3124629	MEAN	8561	CFSM	.84	IN 11.35	AC-FT	6197700
WTR YR 1980†	TOTAL	4025005	MEAN	11000	CFSM	1.07	IN 14.62	AC-FT	7983600

† Adjusted for change in contents in Lake Koocanusa.

12304500 YAAK RIVER NEAR TROY, MT.

LOCATION.--Lat 48°33'43", long 115°58'09", in NE¼SE¼SE¼ sec.5, T.32 N., R.34 W., Lincoln County, Hydrologic Unit 17010103, Kootenai National Forest, on right bank 500 ft (150 m) upstream from bridge on U.S. Highway 2, 0.2 mi (0.3 km) upstream from mouth, and 7.7 mi (12.4 km) northwest of Troy.

DRAINAGE AREA.--766 mi^2 (1,984 km^2).

PERIOD OF RECORD.--October 1910 to September 1916 (fragmentary record), March 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,839.2 ft (560.59 m) National Geodetic Vertical Datum of 1929. Oct. 15, 1910, to Sept. 30, 1916, nonrecording gage at several sites within 11 mi (18 km) of present site at various datums.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 30 acres (0.12 hm^2) above station.

AVERAGE DISCHARGE.--24 years, 889 ft^3/s (25.18 m^3/s), 15.76 in/yr (400 mm/yr), 644,100 acre-ft/yr (794 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,100 ft^3/s (343 m^3/s) May 21, 1956, gage height, 9.70 ft (2.957 m) in gage well, 10.8 ft (3.29 m) from outside gage; minimum daily, 50 ft^3/s (1.42 m^3/s) Dec. 9, 1972.

EXTREMES OUTSIDE PERIOD OF RECORDS.--Flood in May to June 1948 reached a stage of 11.0 ft (3.35 m) from floodmarks, discharge, 12,500 ft^3/s (354 m^3/s). Flood in May 1954 reached a stage of 11.4 ft (3.47 m) from floodmarks, discharge, 13,400 ft^3/s (379 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,900 ft^3/s (198 m^3/s) Apr. 29, gage height, 8.01 ft (2.441 m), only peak above base of 5,000 ft^3/s (142 m^3/s); minimum daily, 55 ft^3/s (1.56 m^3/s) Nov. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	79	121	95	189	150	320	312	5670	1570	560	181	157
2	79	113	120	184	160	340	306	5480	1560	528	178	275
3	78	110	180	185	175	350	311	5240	1360	497	209	417
4	79	110	250	166	170	340	326	4970	1240	470	208	410
5	79	111	300	167	160	310	371	4740	1150	450	195	304
6	79	107	290	125	155	280	456	4760	1110	429	190	249
7	78	105	270	115	150	310	512	4850	1070	403	190	219
8	77	101	210	105	145	280	502	4540	1000	381	183	205
9	77	98	170	100	140	265	487	4180	981	359	182	195
10	77	95	230	110	135	250	522	3960	963	418	188	185
11	79	94	190	120	135	260	534	3450	943	519	179	175
12	81	95	170	140	135	270	580	3050	929	464	179	167
13	80	91	160	180	130	260	677	2720	1040	405	198	163
14	80	82	160	222	125	260	896	2650	972	383	186	172
15	80	72	190	232	135	250	1430	2520	1240	387	174	169
16	80	80	160	228	145	245	1660	2430	1070	368	163	163
17	88	100	180	209	150	245	1880	2390	932	396	160	155
18	97	105	500	205	160	246	2570	2350	838	401	303	152
19	103	95	663	180	170	240	3120	2320	763	393	330	175
20	111	90	623	135	180	237	3530	2220	701	374	303	278
21	111	88	559	140	185	236	3700	2110	661	338	247	328
22	108	89	479	150	195	239	3460	2150	643	307	214	297
23	123	94	393	160	180	267	3830	1950	652	282	192	254
24	145	90	341	175	175	279	5120	1820	644	264	177	225
25	140	88	304	160	160	280	5770	1670	608	246	165	206
26	208	84	273	140	175	276	5460	1980	635	231	158	194
27	184	84	249	120	200	276	5690	1920	763	222	154	185
28	205	75	232	110	250	282	6160	1650	735	209	168	179
29	169	55	218	120	290	300	6790	1500	655	200	171	173
30	149	75	206	130	---	329	6190	1530	599	190	168	170
31	132	---	196	135	---	318	---	1520	---	182	160	---
TOTAL	3335	2797	8561	4837	4815	8640	73154	94290	28027	11256	6053	6596
MEAN	108	93.2	276	156	166	279	2438	3042	934	363	195	220
MAX	208	121	663	232	290	350	6790	5670	1570	560	330	417
MIN	77	55	95	100	125	236	306	1500	599	182	154	152
CFSM	.14	.12	.36	.20	.22	.36	3.18	3.97	1.22	.47	.26	.29
IN.	.16	.14	.42	.23	.23	.42	3.55	4.58	1.36	.55	.29	.32
AC-FT	6610	5550	16980	9590	9550	17140	145100	187000	55590	22330	12010	13080

CAL YR 1979 TOTAL 179793 MEAN 493 MAX 4380 MIN 55 CFSM .64 IN 8.73 AC-FT 356600
WTR YR 1980 TOTAL 252361 MEAN 690 MAX 6790 MIN 55 CFSM .90 IN 12.26 AC-FT 500600

12305000 KOOTENAI RIVER AT LEONIA, ID

LOCATION.--Lat 48°37'04", long 116°02'47", in NW¼NW¼NW¼ sec.20, T.33 N., R.34 W., Principal meridian, Lincoln County, Mont., Hydrologic Unit 17010104, on right bank at Leonia, 450 ft (137 m) east of Montana-Idaho State line, 0.5 mi (0.8 km) upstream from Boulder Creek, and at mile 171.6 (276.1 km).

DRAINAGE AREA.--11,740 mi^2 (30,407 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1928 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,790.25 ft (545.668 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1970, at datum 90 ft (27.4 m) lower. Prior to Nov. 13, 1928, nonrecording gage on bridge 250 ft (76.2 m) upstream at datum 90.41 ft (27.557 m) lower.

REMARKS.--Records good except those for January and February, which are fair. Diversions above station for irrigation of about 14,600 acres (5,900 hm^2). Flow regulated by Libby Dam since Mar. 21, 1972 (see sta 12303000). Corps of Engineers radio telemeter at station.

AVERAGE DISCHARGE.--52 years, 13,910 ft^3/s (395 m^3/s), 16.09 in/yr (410 mm/yr), 10,080,000 acre-ft/yr (12.5 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 123,000 ft^3/s (3,480 m^3/s) May 28, 1948, gage height, 33.40 ft (10.180 m); minimum, 996 ft^3/s (28.2 m^3/s) Dec. 9, 1936; minimum gage height, 7.56 ft (2.304 m) Dec. 10, 1929.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of June 1894 and 1916 reached stages of 34.6 (10.546) and 31.6 ft (9.63 m), respectively, present datum, from information by Great Northern Railway.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 34,600 ft^3/s (980 m^3/s) June 20. gage height, 19.66 ft (5.992 m); minimum, 3,390 ft^3/s (96 m^3/s) Oct. 8, gage height, 9.69 ft (2.954 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

10.0	3770	15.0	15430
11.0	5250	17.0	22700
13.0	9610	20.0	36100

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8380	20200	20800	4960	15400	5350	4480	16500	8540	6660	12600	4860
2	9350	20700	20900	4910	6810	5360	4410	16300	9030	6300	7290	5800
3	8530	19300	18800	7380	5210	5360	4380	16200	9150	6180	5000	6340
4	8400	15200	21000	9000	5250	5310	4410	15700	9320	6030	6320	5870
5	7290	15000	21100	6300	5230	5280	4470	15300	9050	5950	9700	5860
6	11700	20900	21300	4820	5180	5260	4560	15500	9110	5830	9590	8370
7	5750	21100	21100	10800	10500	5330	4910	15200	12200	5920	9990	8020
8	6780	21300	20900	19200	11700	5350	4930	14000	12100	12900	9960	9390
9	10200	21300	20900	19200	6280	5310	4930	13300	16000	15300	8260	13200
10	7940	21400	21300	19200	5100	5310	5010	13400	23200	15300	4930	13000
11	8600	11500	21200	19200	10500	5310	5020	12300	23300	15700	6000	13000
12	12000	21100	17600	12900	11600	4610	5030	11300	23300	13500	9280	12200
13	19500	20600	20700	5430	11500	4410	5200	10600	22600	14100	8890	8960
14	19700	20700	20700	13600	14500	4410	5670	10200	16100	15800	8850	4970
15	13900	21700	20700	15500	19400	4360	6960	10000	10100	15400	8780	4490
16	13400	21900	20500	13500	7070	4330	7830	9870	14000	14400	7840	6210
17	17900	22000	20600	13000	4880	4390	8230	9730	21500	15700	4820	5540
18	15000	21300	21700	13000	6330	5140	9680	9650	24700	16100	6310	4830
19	17300	21900	21900	7000	6850	5170	11200	9690	30900	11300	10500	4820
20	19200	16200	21800	5000	4860	4410	12500	9630	33700	5570	11700	5230
21	14000	21300	15900	11000	4840	4290	13300	9680	33500	10800	12700	5990
22	12900	14800	11800	9000	4930	4260	13300	9820	32800	14600	11600	9240
23	14100	16300	5590	13000	4900	4300	13900	9180	32600	16100	11700	11200
24	14300	21400	5480	13000	4850	4350	16700	8550	32400	13200	8680	5440
25	20400	21500	5360	13000	5500	4330	18200	8130	22000	10300	5580	9680
26	14700	21400	7960	7000	4880	4390	16800	9610	21700	9820	6060	12700
27	14000	21100	6690	19000	4850	5140	17600	9970	16900	5140	5440	12100
28	14700	20900	5160	19400	5060	5140	18900	9060	9580	6770	5890	7180
29	9530	20900	8750	19400	5210	4510	20500	8550	7160	12500	11100	8830
30	18800	20900	5060	19400	---	4510	18600	8360	7440	14300	10100	13000
31	20400	---	4990	19400	---	4500	---	8390	---	14500	8670	---
TOTAL	408650	595800	498240	386500	219170	149480	291610	353670	553980	351970	264130	246320
MEAN	13180	19860	16070	12470	7558	4822	9720	11410	18470	11350	8520	8211
MAX	20400	22000	21900	19400	19400	5360	20500	16500	33700	16100	12700	13200
MIN	5750	11500	4990	4820	4840	4260	4380	8130	7160	5140	4820	4490
AC-FT	810600	1182000	988300	766600	434700	296500	578400	701500	1099000	698100	523900	488600

CAL YR 1979 TOTAL 3833740 MEAN 10500 MAX 22000 MIN 3650 AC-FT 7604000
WTR YR 1980 TOTAL 4319520 MEAN 11800 MAX 33700 MIN 4260 AC-FT 8568000

12305000 KOOTENAI RIVER AT LEONIA, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962-63, 1965 to current year.
PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: July 1962 to May 1963, April 1965 to current year.
INSTRUMENTATION.--Temperature recorder since July 1962.
REMARKS.--Daily water temperature data for water years 1977 and 1978 were insufficient for publishing due to equipment malfunction. Partial records for these years are available in the district office. No temperatures were recorded from Jan. 24 to Feb. 20 and Sept. 26-30 due to equipment malfunction, and Oct. 5, 7-8 when the temperature probe was out of the water.
EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 19.0°C Oct. 6, 1979, and Sept. 15, 1980; minimum, 0.5°C on Jan. 20-21.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	17.0	12.5	10.5	10.5	7.0	6.5	5.0	4.5	---	---	4.0	3.0
2	14.0	13.0	10.5	10.5	7.0	6.0	5.0	5.0	---	---	4.0	3.0
3	13.5	13.0	10.5	10.5	7.0	7.0	5.0	4.5	---	---	3.5	2.0
4	13.5	13.0	11.0	10.0	7.0	6.5	5.0	4.0	---	---	2.0	1.0
5	---	---	11.0	10.0	6.5	6.5	4.5	3.0	---	---	2.0	1.0
6	19.0	13.0	11.0	10.5	7.0	6.5	3.0	1.5	---	---	2.0	1.0
7	---	---	10.5	10.5	7.0	6.5	4.0	1.0	---	---	3.0	1.5
8	---	---	10.5	10.0	7.0	6.5	4.0	2.5	---	---	3.5	2.5
9	18.5	11.5	10.0	9.5	7.0	7.0	3.5	3.0	---	---	3.5	2.5
10	14.0	12.5	10.0	9.5	7.0	5.5	4.0	3.0	---	---	3.5	3.0
11	14.0	13.0	9.5	4.5	6.0	5.5	4.0	3.5	---	---	4.0	3.5
12	17.0	13.0	9.0	8.5	6.0	5.5	4.0	3.0	---	---	4.5	3.0
13	14.0	12.5	9.0	8.5	6.0	5.5	3.0	2.0	---	---	4.5	3.0
14	13.5	13.0	9.0	8.0	6.5	6.0	4.5	3.0	---	---	4.0	3.0
15	13.5	13.0	8.5	8.0	6.0	5.0	4.5	4.0	---	---	3.5	2.5
16	13.5	12.5	8.5	8.0	5.5	5.0	4.0	4.0	---	---	3.5	2.0
17	13.5	12.5	8.5	8.0	6.0	5.5	4.0	4.0	---	---	4.0	3.0
18	12.5	11.5	8.5	8.0	6.0	6.0	4.0	3.0	---	---	4.5	3.0
19	12.0	11.5	8.0	7.5	6.0	6.0	3.0	1.5	---	---	5.0	3.5
20	12.0	11.5	7.5	7.0	6.0	6.0	1.5	.5	---	---	4.5	3.5
21	12.0	11.5	7.5	7.0	6.0	5.5	3.0	.5	3.5	3.0	5.5	3.0
22	12.0	11.5	7.5	6.5	6.0	5.0	3.0	2.0	3.5	2.5	5.5	3.5
23	12.5	12.0	7.5	7.5	5.0	4.5	3.5	3.0	3.5	2.0	5.5	4.5
24	12.5	12.0	7.5	7.5	5.0	4.5	---	---	3.0	2.0	4.5	3.5
25	12.5	12.0	7.5	7.0	5.0	4.5	---	---	3.5	2.5	5.0	3.0
26	12.0	11.5	7.0	6.5	5.5	4.5	---	---	3.5	3.0	4.5	3.5
27	12.0	11.0	6.5	6.5	5.5	5.0	---	---	4.0	3.0	5.0	3.5
28	11.5	11.0	6.5	6.5	5.0	5.0	---	---	4.0	3.5	4.5	3.5
29	13.0	9.0	6.5	6.0	5.0	4.5	---	---	4.0	3.0	4.5	4.0
30	10.5	10.0	7.0	6.5	5.0	4.5	---	---	---	---	5.0	3.5
31	10.5	10.0	---	---	5.0	4.5	---	---	---	---	6.0	3.5
MONTH	19.0	9.0	11.0	4.5	7.0	4.5	5.0	.5	4.0	2.0	6.0	1.0

12305000 KOOTENAI RIVER AT LEONIA, ID--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	5.0	3.5	8.5	6.5	12.5	11.5	16.0	13.0	15.5	14.0	12.5	11.5
2	5.5	3.5	7.5	7.5	11.5	10.5	15.5	14.0	15.0	14.5	13.0	11.5
3	6.0	4.0	8.5	7.0	10.5	9.5	16.0	13.5	15.5	14.0	14.0	12.5
4	6.5	4.5	9.0	7.5	11.0	9.5	15.5	14.5	16.0	13.5	14.0	12.0
5	6.0	5.0	9.5	7.5	11.5	10.0	15.0	13.0	15.0	13.5	14.5	12.0
6	6.0	4.5	8.5	7.5	11.5	10.5	16.0	13.5	15.0	14.0	13.5	13.0
7	6.0	5.0	7.5	7.0	12.5	10.5	16.5	13.0	16.5	14.5	13.0	12.5
8	5.0	4.5	8.0	7.0	13.0	12.0	15.0	14.0	16.5	15.5	14.5	12.5
9	5.0	4.0	7.5	7.0	13.0	13.0	15.0	14.0	16.5	15.5	14.0	12.5
10	5.0	4.0	8.0	6.5	14.0	12.0	14.5	13.5	18.0	15.5	14.5	13.0
11	6.0	4.0	9.0	7.0	14.0	12.0	14.0	13.0	18.0	15.5	15.0	13.5
12	6.5	4.5	9.0	8.0	14.0	12.5	14.5	13.5	16.5	15.0	14.5	13.5
13	7.0	5.0	9.0	8.0	12.5	11.5	14.5	14.0	17.0	15.5	14.0	12.0
14	7.5	5.5	10.0	8.0	13.5	11.0	14.5	12.5	17.0	16.0	13.5	12.0
15	7.0	6.0	10.5	8.5	15.0	13.5	14.0	13.0	16.5	15.0	19.0	11.5
16	6.5	5.0	11.0	9.0	14.5	13.5	14.0	13.0	15.5	14.5	13.0	12.0
17	7.5	5.5	11.0	10.0	13.5	12.0	14.0	12.5	14.5	13.0	14.0	12.5
18	8.0	6.0	11.5	10.0	12.5	11.0	14.0	13.0	12.5	11.5	13.5	12.0
19	7.5	6.0	11.0	10.0	11.5	9.5	15.0	13.5	12.5	11.5	11.5	11.0
20	7.0	6.0	12.0	10.0	10.5	9.0	17.0	14.5	13.5	12.0	11.5	10.5
21	6.5	6.0	12.5	10.5	11.5	9.5	17.0	15.5	13.5	12.5	12.5	10.5
22	7.0	6.0	11.5	10.0	11.0	10.0	16.5	15.5	14.0	12.0	11.0	10.0
23	8.0	6.0	10.0	9.0	10.5	9.5	16.5	15.5	15.0	13.5	12.0	10.5
24	7.5	6.0	9.5	8.5	10.5	9.0	16.0	15.0	15.0	14.0	12.0	10.5
25	6.5	5.5	9.5	9.0	12.0	10.0	16.5	15.0	15.0	13.0	11.5	10.5
26	7.5	6.0	9.5	9.0	12.0	11.0	16.0	14.5	15.0	12.5	---	---
27	8.0	6.5	10.0	9.0	13.0	11.5	16.5	15.0	14.5	13.0	---	---
28	8.0	7.0	11.0	10.0	14.0	12.0	18.5	15.5	14.0	12.5	---	---
29	7.5	6.5	11.0	10.5	15.5	13.0	16.0	14.5	13.0	12.0	---	---
30	7.5	6.0	11.5	10.5	15.5	13.0	15.5	13.5	13.0	12.0	---	---
31	---	---	12.5	11.0	---	---	15.0	13.5	12.5	12.0	---	---
MONTH	8.0	3.5	12.5	6.5	15.5	9.0	18.5	12.5	18.0	11.5	19.0	10.0
YEAR	19.0	.5										

12306500 MOYIE RIVER AT EASTPORT, ID
(International gaging station)

LOCATION.--Lat 48°59'58", long 116°10'43", in NW¼NE¼SE¼ sec.10, T.65 N., R.2 E., Boundary County, Hydrologic Unit 17010105, Kaniksu National Forest, on left bank at Eastport, 1,000 ft (305 m) downstream from international boundary, and at mile 25.0 (40.2 km).

DRAINAGE AREA.--570 mi² (1,476 km²), approximately.

PERIOD OF RECORD.--January to December 1915, March to December 1916, August 1929 to current year in reports of Geological Survey. Monthly discharge only for some periods, published in WSP 1736.

GAGE.--Water-stage recorder. Datum of gage is 2,620.06 ft (798.594 m) National Geodetic Vertical Datum of 1929. January 1915 to December 1916 nonrecording gage at site 0.2 mi (0.3 km) upstream at different datum.

REMARKS.--Records good except those for winter period, which are fair. No regulation or diversion above station.

COOPERATION.--This station is one of the international gaging stations maintained by the United States under agreement with Canada. Three discharge measurements per year furnished by Water Survey of Canada.

AVERAGE DISCHARGE.--51 years, 703 ft³/s (19.9 m³/s), 16.75 in/yr (425.4 mm/yr), 509,300 acre-ft/yr (628 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 10,600 ft³/s (300 m³/s) June 19, 1916; maximum gage height, 10.55 ft (3.216 m) May 20, 1954; minimum discharge, 23 ft³/s (0.651 m³/s) Nov. 7, 1936, gage height, 3.20 ft (0.975 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,970 ft³/s (169 m³/s) Apr. 29, gage height, 8.73 ft (2.661 m), only peak above base of 2,900 ft³/s (82.1 m³/s); minimum, 30 ft³/s (0.85 m³/s) Oct. 11, 13-15, gage height, 3.27 ft (0.997 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 13-14, Nov. 20 to Dec. 2, Jan. 5 to Feb. 22)

3.2	23	4.7	612
3.4	49	5.4	1160
3.6	87	6.4	2260
3.9	177	7.4	3740
4.2	309	8.6	5740

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	51	48	114	62	182	160	5470	1640	404	123	98
2	34	48	70	111	70	182	160	5580	1630	376	119	131
3	34	54	114	110	77	178	166	5380	1530	352	133	203
4	33	53	131	105	78	213	175	5130	1420	329	122	146
5	33	53	127	95	77	175	187	4940	1310	313	121	130
6	33	49	92	86	76	172	201	4970	1240	295	124	118
7	33	48	59	84	78	181	204	5070	1150	277	120	115
8	33	48	59	83	80	149	199	4620	1060	262	115	117
9	31	46	76	85	80	138	203	4220	1010	247	115	112
10	31	48	144	88	80	135	223	3600	959	266	113	108
11	31	47	102	91	81	146	222	3410	905	292	108	103
12	31	45	137	96	80	145	241	3080	886	258	105	99
13	31	40	138	98	78	144	272	2810	870	246	112	97
14	30	41	106	99	75	142	365	2750	812	239	106	104
15	30	42	103	98	74	138	666	2560	1080	243	101	101
16	31	47	118	97	76	132	754	2430	864	231	96	95
17	35	54	253	94	79	131	835	2360	770	245	98	93
18	39	51	301	90	98	130	1110	2340	698	228	140	92
19	42	47	265	84	125	129	1380	2320	642	227	150	100
20	45	47	236	84	130	128	1620	2250	593	217	127	118
21	43	45	210	86	125	128	1750	2160	550	202	120	128
22	42	43	189	87	115	133	1880	2240	515	191	114	113
23	43	42	171	86	107	152	2300	2090	506	182	111	109
24	53	41	162	85	105	151	3360	2070	493	171	106	104
25	59	40	152	82	94	153	3770	1920	457	163	101	99
26	81	38	143	70	83	153	3920	2000	476	155	99	98
27	68	37	135	60	90	152	4480	1840	556	148	99	95
28	78	36	130	58	115	151	4960	1640	506	141	115	95
29	70	35	125	57	150	154	5740	1530	462	134	112	94
30	59	35	121	57	---	159	5580	1520	431	130	103	92
31	54	---	118	57	---	159	---	1560	---	126	98	---
TOTAL	1325	1351	4335	2677	2638	4715	47083	96060	26021	7290	3526	3308
MEAN	42.7	45.0	140	86.4	91.0	152	1569	3099	867	235	114	110
MAX	81	54	301	114	150	213	5740	5580	1640	404	150	203
MIN	30	35	48	57	62	128	160	1520	431	126	96	92
CFSM	.08	.08	.25	.15	.16	.27	2.75	5.44	1.52	.41	.20	.19
IN.	.09	.09	.28	.17	.17	.31	3.07	6.27	1.70	.48	.23	.22
AC-FT	2630	2680	8600	5310	5230	9350	93390	190500	51610	14460	6990	6560

CAL YR 1979 TOTAL 129507 MEAN 355 MAX 2930 MIN 30 CFSM .62 IN 8.45 AC-FT 256900
WTR YR 1980 TOTAL 200329 MEAN 547 MAX 5740 MIN 30 CFSM .96 IN 13.07 AC-FT 397400

12309500 KOOTENAI RIVER AT BONNERS FERRY, ID

LOCATION.--Lat 48°42'00", long 116°18'45", in NW¼SE¼NE¼ sec.27, T.62 N., R.1 E., Boundary County, Hydrologic Unit 17010104, on left bank 43 ft (13 m) downstream from highway bridge at Bonners Ferry, and at mile 152.8 (245.9 km).

DRAINAGE AREA.--13,000 mi² (33,670 km²), approximately.

PERIOD OF RECORD.--May to October 1904, October 1927 to current year (elevations only prior to March 1928 and October 1960 to current year). Gage heights collected in this vicinity since 1904 are contained in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 1716: Maximum elevation. WDR ID-78-2: 1975(m), 1976(M).

GAGE.--Water-stage recorder. Datum of gage is 1,743.00 ft (531.266 m) with respect to Geological Survey bench mark V-3-1929 at elevation 1,777.08 ft (541.654 m). Gage heights have been reduced to that datum. National Geodetic Vertical Datum of 1929 is 0.02 ft (0.061 m) higher. May 1 to Oct. 15, 1904, nonrecording gage on railroad bridge 0.8 mi (1.3 km) downstream at different datum. Oct. 1, 1927, to Nov. 30, 1929, nonrecording gage near left bank. Dec. 1, 1929, to June 12, 1933, nonrecording gages on old highway bridge 40 ft (12 m) downstream. Nonrecording gage near right bank on downstream side of highway bridge at Bonners Ferry June 13, 1933, to Sept. 30, 1960, and supplementary gage thereafter. Datum of gages Oct. 1, 1927, to Jan. 2, 1931, was about 0.23 ft (0.070 m) lower.

REMARKS.--Elevations affected by backwater from Kootenay Lake. No drainage district dike failed during year. Flow regulated by Libby Dam since Mar. 21, 1972 (see sta 12305000).

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,780.13 ft (542.584 m) May 29, 1961; minimum, 1,741.14 ft (530.699 m) Dec. 5, 1929, Dec. 29, 1930, datum then in use.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1894 reached a stage of 1,777.2 ft (541.69 m), present datum.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,756.00 ft (535.229 m) Apr. 29; minimum daily elevation, 1,743.32 ft (531.364 m) Apr. 4, 6.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46.84	51.89	52.25	46.90	50.20	44.63	43.40	54.99	49.54	47.84	48.92	45.05
2	47.36	52.00	52.30	46.75	48.90	44.72	43.34	54.73	49.54	47.29	46.75	45.10
3	47.13	51.92	51.95	46.70	47.50	44.74	43.34	54.79	49.54	46.91	45.39	45.60
4	46.96	50.64	52.05	47.62	46.30	44.65	43.32	54.78	49.42	46.66	45.33	45.35
5	46.65	49.63	52.25	47.40	45.60	44.71	43.33	54.68	49.22	46.49	46.99	45.30
6	47.55	51.83	52.30	46.13	45.12	44.62	43.32	54.81	48.92	46.28	46.99	45.90
7	47.11	52.22	52.25	46.83	45.03	44.68	43.36	55.14	49.48	46.00	47.13	46.20
8	45.84	52.31	52.20	49.91	46.40	44.67	43.36	54.99	49.62	47.29	47.16	46.05
9	48.29	52.36	52.05	49.95	46.47	44.63	43.37	54.61	49.80	48.90	46.93	48.25
10	46.95	52.39	52.25	50.02	44.93	44.61	43.41	54.42	52.54	49.46	45.25	48.50
11	47.15	50.46	52.20	50.06	44.81	44.67	43.38	53.85	52.99	49.49	45.22	48.65
12	47.75	50.74	51.90	49.63	46.20	44.52	43.38	53.14	53.07	49.54	46.87	48.61
13	50.41	52.02	50.95	46.58	46.32	44.33	43.39	52.48	53.27	48.55	46.71	48.09
14	51.19	52.06	51.70	46.94	46.39	44.39	43.43	52.11	52.28	48.94	46.69	46.09
15	50.09	52.28	52.05	50.04	48.52	44.36	44.29	51.84	49.35	49.52	46.65	45.94
16	49.70	52.47	51.90	49.63	48.34	44.26	45.12	51.59	49.11	49.30	46.20	45.93
17	50.09	52.55	51.90	49.08	45.11	44.11	45.31	51.46	51.54	49.47	45.20	46.55
18	50.40	52.40	52.05	49.01	44.90	44.32	46.02	51.33	52.86	50.13	45.35	45.96
19	50.42	52.55	52.20	48.49	45.06	44.43	47.03	51.26	54.33	49.27	47.15	45.85
20	51.12	51.91	52.20	45.93	45.00	44.24	48.05	51.25	55.60	46.21	47.40	46.09
21	50.24	51.17	51.20	45.96	44.38	44.05	48.73	51.20	55.91	46.39	48.05	46.38
22	49.28	50.87	49.10	47.91	44.21	43.87	49.02	51.23	55.96	48.43	48.00	46.89
23	49.61	50.24	47.60	47.05	44.08	43.72	49.33	51.30	55.96	49.40	47.70	48.82
24	49.74	51.58	47.20	47.53	43.90	43.70	50.75	50.97	55.96	49.03	47.45	46.79
25	51.32	52.30	46.95	47.54	43.88	43.66	52.51	50.61	54.44	47.92	45.30	47.07
26	50.30	52.35	46.80	47.25	44.06	43.55	52.52	50.52	53.40	48.00	45.35	48.75
27	49.79	52.30	47.00	46.48	44.01	43.85	52.82	50.68	52.46	45.72	45.15	48.96
28	50.08	52.25	46.80	50.18	44.27	43.90	53.85	50.41	50.10	45.46	45.10	47.56
29	48.17	52.20	47.80	50.44	44.50	43.66	55.33	50.00	48.49	47.77	46.80	46.74
30	50.86	52.20	47.20	50.71	---	43.55	55.81	49.80	47.95	48.65	47.20	48.96
31	51.80	---	46.80	50.55	---	43.46	---	49.64	---	49.04	46.95	---
MEAN	49.04	51.80	50.50	48.23	45.67	44.23	46.79	52.41	51.76	48.04	46.56	46.87
MAX	51.80	52.55	52.30	50.71	50.20	44.74	55.81	55.14	55.96	50.13	48.92	48.96
MIN	45.84	49.63	46.80	45.93	43.88	43.46	43.32	49.64	47.95	45.46	45.10	45.05

WTR YR 1980 MEAN 48.50 MAX 55.96 MIN 43.32

12314000 KOOTENAI RIVER AT KLOCKMANN RANCH, NEAR BONNERS FERRY, ID

LOCATION.--Lat 48°47'38", long 116°22'51", in SE¼NW¼SE¼ sec.19, T.63 N., R.1 E., Boundary County, Hydrologic Unit 17010104, on right bank 0.3 mi (0.5 km) downstream from dike of drainage district No. 5, 8 mi (12.9 km) north of Bonners Ferry, and at mile 139.7 (224.2 km).

DRAINAGE AREA.--13,300 mi² (34,450 km²), approximately.

PERIOD OF RECORD.--May to July, September to November 1928, April to September, December 1929, April 1930 to current year (elevations only, fragmentary prior to April 1930).

GAGE.--Water-stage recorder. Datum of gage is 1,700.00 ft (518.160 m) Topographic Division datum of 1928. Gage readings have been reduced to elevations of that datum. National Geodetic Vertical Datum of 1929 is about 0.03 ft (0.009 m) higher. Prior to Sept. 12, 1928, several nonrecording gages within 300 ft (91.4 m) at different datums.

REMARKS.--Elevations affected by backwater from Kootenay Lake. No drainage district dike failed during year. Flow regulated by Libby Dam since Mar. 21, 1972.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,776.41 ft (541.450 m) June 7, 1961; minimum, 1,738.76 ft (529.974 m) Apr. 1, 1944.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,753.75 ft (534.543 m) Apr. 30; minimum, 1,739.86 ft (530.309 m) Apr. 4.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46.01	49.82	50.09	45.85	48.37	43.04	40.11	52.72	48.41	47.02	47.07	44.45
2	46.29	49.86	50.19	45.69	46.88	43.04	40.02	52.69	48.50	46.53	45.62	44.50
3	46.14	49.84	49.80	45.74	45.37	43.02	39.91	52.85	48.35	46.16	44.69	44.86
4	46.00	48.91	49.91	46.46	44.70	42.89	39.89	52.89	48.07	45.91	44.62	44.73
5	45.83	48.09	50.09	46.37	44.43	42.87	39.90	52.83	47.92	45.73	45.55	44.70
6	46.34	49.68	50.10	45.49	44.06	42.74	39.93	53.15	47.64	45.50	45.57	45.10
7	46.16	50.07	50.10	45.68	43.97	42.72	40.07	53.44	48.05	45.16	45.65	45.31
8	45.39	50.18	50.02	47.86	45.31	42.66	40.11	53.22	48.07	45.79	45.67	45.15
9	46.92	50.22	49.90	47.92	45.38	42.55	40.16	52.91	48.10	47.06	45.53	46.61
10	46.07	50.23	50.05	48.01	43.88	42.49	40.27	52.87	50.39	47.52	44.55	46.82
11	46.21	49.13	50.03	48.07	43.76	42.46	40.32	52.30	50.88	47.58	44.53	46.92
12	46.57	48.59	49.80	47.95	45.12	42.28	40.32	51.69	50.96	47.62	45.46	46.97
13	48.31	49.87	48.99	45.85	45.23	42.06	40.40	51.11	51.04	46.96	45.40	46.73
14	49.14	49.92	49.59	45.87	45.30	42.04	40.59	50.78	50.13	47.22	45.38	45.51
15	48.57	50.07	49.87	48.00	47.02	41.97	41.08	50.55	47.88	47.62	45.39	45.42
16	48.18	50.25	49.72	47.82	46.89	41.79	41.79	50.32	47.55	47.48	45.40	45.36
17	48.30	50.35	49.68	47.35	44.05	41.61	42.12	50.21	49.50	47.63	44.58	45.77
18	48.78	50.25	49.87	47.26	43.85	41.74	42.79	50.13	50.66	48.09	44.58	45.43
19	48.60	50.34	50.02	46.96	44.00	41.80	43.85	50.13	51.92	47.48	45.72	45.37
20	49.14	50.06	50.00	45.19	43.95	41.54	44.86	50.09	53.06	45.34	45.97	45.55
21	48.79	49.06	49.88	44.95	43.34	41.32	45.64	50.07	53.44	45.38	46.60	45.76
22	47.90	49.30	48.80	46.23	43.13	41.08	46.02	50.28	53.41	46.60	46.58	46.02
23	48.06	48.41	47.20	45.55	42.92	40.90	46.49	50.14	53.44	47.62	46.31	47.31
24	48.16	49.47	46.20	46.37	42.71	40.84	47.81	49.75	53.52	47.41	46.03	46.12
25	49.13	50.13	45.88	46.38	42.60	40.73	49.66	49.43	52.32	46.51	44.67	46.09
26	48.77	50.20	45.72	46.19	42.74	40.59	49.82	49.41	51.28	46.45	44.77	47.26
27	48.25	50.17	45.94	45.66	42.61	40.79	50.34	49.50	50.71	45.03	44.54	47.46
28	48.40	50.08	45.71	48.11	42.81	40.80	51.44	49.14	48.93	44.73	44.49	46.60
29	47.17	50.05	46.80	48.50	42.95	40.50	52.98	48.79	47.65	46.03	45.40	45.96
30	48.82	50.03	46.10	48.79	---	40.36	53.43	48.61	47.16	46.70	45.77	47.43
31	49.69	---	45.73	48.60	---	40.20	---	48.50	---	47.08	45.59	---
MEAN	47.62	49.75	48.77	46.80	44.39	41.79	43.74	50.98	49.96	46.62	45.41	45.91
MAX	49.69	50.35	50.19	48.79	48.37	43.04	53.43	53.44	53.52	48.09	47.07	47.46
MIN	45.39	48.09	45.71	44.95	42.60	40.20	39.89	48.50	47.16	44.73	44.49	44.45

WTR YR 1980 MEAN 46.82 MAX 53.52 MIN 39.89

12316800 MISSION CREEK NEAR COPELAND, ID

LOCATION.--Lat 48°55'54", long 116°20'00", in SW¼NE¼NE¼ sec.4, T.64 N., R.1 E., Boundary County, Hydrologic Unit 17010104, on left bank 0.1 mi (0.2 km) upstream from bridge crossing, 4 mi (6.4 km) northeast of Copeland, at mile 6.0 (9.7 km), and 17 mi (27.4 km) north of Bonners Ferry.

DRAINAGE AREA.--23 mi² (60 km²), approximately.

PERIOD OF RECORD.--September 1958 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,814 ft (857 m).

REMARKS.--Records poor. No regulation or diversion above station.

AVERAGE DISCHARGE.--22 years, 35.9 ft³/s (1.02 m³/s), 21.20 in/yr (538 mm/yr), 26,010 acre-ft/yr (32.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 528 ft³/s (15.0 m³/s) May 26, 1961, gage height, 5.52 ft (1.682 m); from rating curve extended above 250 ft³/s on basis of indirect measurement of peak flow; minimum daily, 1.3 ft³/s (36.8 dm³/s) Dec. 7-11, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 419 ft³/s (11.9 m³/s) Apr. 29, gage height, 4.72 ft (1.439 m), only peak above base of 170 ft³/s (4.81 m³/s); minimum daily, 1.5 ft³/s (42.5 dm³/s) Nov. 29, but may have been less during periods of ice effect.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 3-24, Jan. 3-8, 25-28, Mar. 6-7)

Oct. 1 to Apr. 3				Apr. 4 to Sept. 30			
1.6	1.4	2.0	5.3	1.9	4.0	2.8	61
1.7	2.1	2.1	8.1	2.1	9.7	3.4	129
1.8	2.1	2.3	16	2.3	19.5	4.0	237
1.9	3.4	2.5	27	2.5	33	5.0	505

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	3.7	2.0	4.7	3.1	5.6	9.3	350	62	18	5.8	5.0
2	2.5	3.5	3.5	4.7	3.5	6.1	9.2	345	60	17	6.0	12
3	2.4	3.4	7.0	4.5	3.8	5.9	9.7	350	59	16	9.4	9.4
4	2.5	3.3	6.0	4.4	3.8	5.9	11	340	56	15	6.4	6.8
5	2.5	3.2	5.0	3.8	3.7	5.6	13	330	52	15	6.3	5.8
6	2.4	3.1	4.0	2.5	3.7	4.6	15	300	49	14	7.3	5.3
7	2.4	3.0	3.5	2.2	3.8	4.7	14	280	46	13	6.0	5.2
8	2.5	2.9	3.3	2.2	3.9	5.1	13	240	42	13	5.5	5.0
9	2.5	2.7	6.0	2.3	4.0	5.1	14	220	39	12	5.5	4.7
10	2.6	2.6	7.0	2.4	4.0	5.6	16	200	36	15	5.2	4.5
11	2.6	2.4	6.8	2.6	3.9	5.3	17	170	34	14	4.8	4.5
12	2.6	2.2	5.0	2.8	3.7	5.6	20	140	35	13	4.8	4.3
13	2.6	2.1	4.5	3.2	3.4	6.3	23	125	34	12	6.0	4.6
14	2.6	2.1	6.0	3.7	3.0	8.0	34	110	33	12	4.8	5.5
15	2.8	2.2	9.0	4.0	3.2	8.2	59	98	40	12	4.5	4.5
16	2.8	2.3	15	4.1	3.4	9.2	63	90	33	11	4.3	4.4
17	3.5	2.4	25	3.9	3.9	9.4	71	81	30	12	4.6	4.3
18	3.2	2.5	15	3.8	5.1	9.5	90	76	28	11	14	4.6
19	3.8	2.4	11	3.6	6.4	9.7	99	72	26	11	8.2	5.8
20	3.6	2.3	8.0	3.4	6.4	9.7	102	70	25	9.7	6.3	7.1
21	3.8	2.1	7.0	3.5	6.0	9.7	100	68	23	9.0	5.5	6.5
22	3.4	2.0	6.5	3.6	5.3	9.7	112	67	23	8.4	4.9	5.6
23	5.4	1.9	6.2	3.7	4.4	9.5	137	66	25	7.9	4.5	5.3
24	6.3	1.9	6.0	3.7	3.8	9.5	197	64	24	7.5	4.3	5.0
25	6.7	1.8	5.7	3.5	3.4	9.9	191	60	22	7.2	4.1	4.7
26	6.2	1.8	5.6	3.1	3.6	9.8	230	62	24	6.9	4.0	4.5
27	5.3	1.7	5.4	2.8	4.1	9.6	270	56	25	6.7	4.5	4.5
28	8.5	1.6	5.2	2.7	4.6	9.4	320	52	23	6.4	7.5	4.4
29	5.8	1.5	5.1	2.6	6.4	9.3	400	46	21	6.2	6.8	4.4
30	4.6	1.6	4.9	2.7	---	9.3	370	48	20	6.0	5.0	4.5
31	4.0	---	4.8	2.8	---	9.3	---	50	---	5.9	4.7	---
TOTAL	114.9	72.2	215.0	103.5	121.3	240.1	3029.2	4026	1048	343.8	181.5	162.7
MEAN	3.71	2.41	6.94	3.34	4.18	7.75	101	149	34.9	11.1	5.85	5.42
MAX	8.5	3.7	25	4.7	6.4	9.9	400	350	62	18	14	12
MIN	2.4	1.5	2.0	2.2	3.0	4.6	9.2	46	20	5.9	4.0	4.3
CFSM	.16	.11	.30	.15	.18	.34	4.39	6.48	1.52	.48	.25	.24
IN.	.19	.12	.35	.17	.20	.39	4.90	7.48	1.69	.56	.29	.26
AC-FT	228	143	426	205	241	476	6010	9180	2080	682	360	323

CAL YR 1979 TOTAL 7221.9 MEAN 19.8 MAX 216 MIN 1.5 CFSM .86 IN 11.68 AC-FT 14320
WTR YR 1980 TOTAL 10258.2 MEAN 28.0 MAX 400 MIN 1.5 CFSM 1.22 IN 16.59 AC-FT 20350

NOTE.--No gage-height record Nov. 24 to Jan. 2, Jan. 9 to Feb. 21, Mar. 25 to Apr. 3, Apr. 26 to June 3.

12318500 KOOTENAI RIVER NEAR COPELAND, ID
(International gaging station)

LOCATION.--Lat 48°54'18", long 116°24'07", in NE¼NW¼NE¼ sec.13, T.64 N., R.1 W., Boundary County, Hydrologic Unit 17010104, at the Copeland bridge, 200 ft (61 m) upstream from Mission Creek, 0.7 mi (1.1 km) northwest of Copeland, 1 mi (1.6 km) upstream from cableway and discontinued gage, and at mile 124.2 (199.8 km).
DRAINAGE AREA.--13,400 mi² (34,710 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1927 to current year (elevation record only prior to May 1929). Published as "at Copeland" 1927-29. April 1925 to September 1927 (gage heights only) in reports of Water Survey of Canada, Department of Energy, Mines and Resources.
REVISED RECORDS.--WSP: 1934-37(M), 1940-47(M), 1949(M).
GAGE,--Nonrecording gage, wire-weight gage. Datum of gage is 1,700.00 ft (518.160 m) Topographic Division datum of 1928. Gage readings have been reduced to elevations of that datum. National Geodetic Vertical Datum of 1929 is about 0.04 ft (0.012 m) higher. Prior to Sept. 30, 1975, water-stage recorder located in gage shelter 1 mi (1.6 km) downstream at same datum. October 1927 to Nov. 20, 1929, nonrecording or recording gage at site 0.2 mi (0.3 km) downstream; datum 40.77 ft (12.427 m) higher prior to Apr. 18, 1929.
REMARKS.--Records fair except for those below 10,000 ft³/s, which are poor. Stage-discharge relation affected by backwater from Kootenay Lake. No drainage district dike failed during year. Discharge computed from slope and conveyance of the reach between stations at Klockmann Ranch and at Porthill, and discharge measurements at station near Copeland. Flow regulated by Libby Dam started on Mar. 21, 1972.
COOPERATION.--This station is maintained by the United States under agreement with Canada. Three discharge measurements per year furnished by Water Survey of Canada.
AVERAGE DISCHARGE.--51 years (water years 1930-80), 15,500 ft³/s (439 m³/s), 15.71 in/yr (399.0 mm/yr); 11,230,000 acre-ft/yr (13,850 hm³/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 124,000 ft³/s (3,510 m³/s) May 30, 1948; maximum elevation, 1,772.55 ft (540.273 m) June 6, 1961; minimum daily discharge, 1,350 ft³/s (38.2 m³/s) Feb. 8, 1936; minimum elevation, 1,738.52 ft (529.901 m) Apr. 2, 3, 1944.
EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 32,600 ft³/s (923 m³/s) June 21; maximum observed elevation, 1,751.96 ft (533.997 m) May 7; minimum daily discharge, 4,460 ft³/s (126 m³/s) Mar. 26; minimum observed elevation, 1,739.08 ft (530.072 m) Apr. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7600	20300	21200	6260	18300	6330	4780	27600	11000	8220	14500	5370
2	8880	20700	21300	5360	13500	6380	4640	26400	11600	7260	9250	5330
3	8580	20400	20000	5700	9820	6380	4500	26100	11600	6660	5410	6830
4	8170	16800	20800	9520	7740	6140	4540	25300	11100	6670	5290	6130
5	7440	13800	21500	9120	6550	5930	4640	24100	11300	6520	9270	5820
6	9580	19900	21800	5410	5360	5720	4710	24000	10800	6660	9560	7420
7	8520	21000	21800	7220	5470	5760	4860	23800	13200	6470	9970	8010
8	4770	21200	21700	16200	11300	5730	4920	22200	13800	9780	10100	7060
9	11500	21300	21500	16200	11300	5610	4910	20700	14400	14300	9590	12600
10	7680	21500	21900	16200	5580	5630	5030	20700	22800	15600	5410	12900
11	8090	17100	22100	16300	5530	5670	5120	18800	24200	15700	5410	12900
12	9490	16300	21100	15700	11300	5160	5170	17000	24400	15700	9210	12700
13	16100	20700	18900	6320	11500	4710	5280	15400	24700	13700	8920	11300
14	18500	20900	21100	6910	11800	4680	5730	14700	20900	14700	8770	5660
15	15500	21400	21600	16100	18100	4850	6780	14300	12900	15900	8660	5060
16	14200	22000	21600	15000	16000	4760	8430	13700	12700	15100	8580	4980
17	14800	22100	21500	13300	5690	4580	9070	13500	20100	15600	5210	6920
18	16400	21700	21800	13300	5480	5340	10500	13300	23800	17100	5410	5220
19	15900	22100	21700	12500	6630	5860	13100	13400	28400	14600	9780	5090
20	17800	20900	21600	5750	7080	5180	15300	13300	32000	6960	10500	5310
21	16000	17800	21500	6000	5450	4760	17000	13300	32600	8150	12700	5840
22	12900	18300	17900	12100	5290	4600	17600	13700	32100	13500	12600	7000
23	13700	15400	12900	9960	5220	4500	18700	13100	31800	16100	11700	12300
24	14400	19600	8150	12700	5040	4640	21000	12000	31800	14700	10600	6990
25	18400	21500	6380	12700	5060	4590	25400	11300	26500	11400	5650	7240
26	16400	21600	5650	11900	5720	4460	24900	12300	22700	11500	6450	12200
27	14600	21500	5740	10700	5080	5260	25300	13000	20300	6100	5750	12900
28	15000	21400	5650	19500	5770	5560	27300	12100	13500	5380	5570	9300
29	9880	21200	11000	19700	6100	4910	29800	11200	8950	10900	9400	6540
30	16700	21200	7980	20100	---	4720	30500	10900	7820	13300	10700	12300
31	19800	---	5650	18300	---	4580	---	10900	---	14500	9940	---
TOTAL	397280	601600	535000	372030	242760	162980	369010	522100	583770	358930	269860	245220
MEAN	12820	20050	17260	12000	8371	5257	12300	16840	19460	11580	8705	8174
MAX	19800	22100	22100	20100	18300	6380	30500	27600	32600	17100	14500	12900
MIN	4770	13800	5650	5360	5040	4460	4500	10900	7820	5380	5210	4980
CFSM	.96	1.50	1.29	.90	.63	.39	.92	1.26	1.45	.86	.65	.61
IN.	1.10	1.67	1.49	1.03	.67	.45	1.02	1.45	1.62	1.00	.75	.68
AC-FT	788000	1193000	1061000	737900	481500	323300	731900	1036000	1158000	711900	535300	486400

CAL YR 1979 TOTAL 4066180 MEAN 11140 MAX 24600 MIN 4050 CFSM .83 IN 11.29 AC-FT 8065000
WTR YR 1980 TOTAL 4660540 MEAN 12730 MAX 32600 MIN 4460 CFSM .95 IN 12.94 AC-FT 9244000

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45.76	48.14	48.26	45.44	46.51	42.28	39.44	50.70	47.66	46.42	45.77	44.06
2	45.90	48.14	48.39	45.41	45.92	42.30	39.35	50.84	47.57	45.96	44.86	44.22
3	45.72	48.09	48.32	45.38	44.30	42.25	39.30	51.02	47.60	45.54	44.37	44.46
4	45.50	46.96	48.10	45.60	44.00	42.28	39.24	51.16	47.32	45.44	44.32	44.38
5	45.55	46.62	48.24	45.46	43.95	42.22	39.26	51.20	47.22	45.37	44.85	44.38
6	45.96	47.05	48.22	45.05	43.6[illegible]	42.16	39.14	51.60	46.90	45.06	45.00	44.73
7	45.84	48.07	48.23	45.06	43.54	42.16	39.36	51.96	47.02	44.72	45.00	44.86
8	45.34	48.12	48.11	46.81	44.53	42.12	39.34	51.92	46.92	44.89	45.00	44.68
9	46.24	48.23	48.02	46.82	44.52	42.04	39.27	51.63	46.86	46.20	44.90	45.85
10	45.77	48.34	48.13	46.96	43.44	41.94	39.56	51.58	48.38	46.22	44.05	46.06
11	45.82	48.06	48.08	47.12	43.30	41.88	39.51	51.26	48.86	46.43	44.10	46.12
12	46.30	47.32	48.02	47.09	44.38	41.69	39.62	50.72	48.94	46.50	44.43	46.24
13	46.86	48.05	47.21	45.46	44.52	41.57	39.62	50.14	48.66	45.61	44.96	46.16
14	47.72	48.10	47.64	45.38	44.70	41.58	39.68	49.86	48.29	45.86	44.86	45.22
15	47.72	48.22	48.02	46.98	45.51	41.48	40.05	49.74	47.72	46.40	44.96	45.30
16	47.46	48.33	47.76	46.90	46.00	41.30	40.56	49.56	46.46	46.36	44.89	45.12
17	47.55	48.38	47.76	46.60	43.80	41.16	40.72	49.46	47.72	46.65	44.36	45.40
18	47.62	48.36	48.00	46.07	43.60	41.16	41.21	49.38	48.64	46.46	44.40	45.20
19	47.74	48.44	48.30	45.68	43.60	41.04	42.05	49.36	49.62	46.30	45.16	45.14
20	47.64	48.44	48.20	44.90	43.52	40.90	42.79	49.32	50.55	44.95	45.22	45.34
21	47.88	47.52	47.96	44.60	43.00	40.75	43.57	49.22	50.82	45.85	45.71	45.50
22	47.47	48.15	47.68	44.94	42.75	40.70	43.88	49.26	50.87	45.60	45.88	45.66
23	47.46	47.68	45.65	44.43	42.45	40.58	44.36	49.20	50.94	46.20	45.74	46.46
24	47.44	47.80	45.55	44.92	42.25	40.26	45.55	48.95	50.82	45.98	45.47	45.78
25	47.75	48.27	45.62	45.42	42.08	40.19	47.30	48.80	50.00	45.80	44.30	45.65
26	47.54	48.22	45.45	45.20	42.22	39.93	47.46	48.76	49.46	45.80	44.28	46.50
27	47.15	48.26	45.75	44.58	42.14	40.10	48.44	48.65	49.40	44.56	44.24	46.74
28	47.48	48.20	45.41	46.23	42.25	40.06	49.17	48.39	48.08	44.37	44.16	46.29
29	46.62	48.21	46.16	46.65	42.38	39.80	50.17	48.12	47.08	45.12	44.77	45.68
30	47.60	48.20	45.67	46.96	---	40.03	51.18	47.96	46.64	45.54	45.17	46.80
31	47.97	---	45.34	46.88	---	39.56	---	47.88	---	46.12	44.94	---
MEAN	46.85	48.00	47.33	45.84	43.75	41.21	42.34	49.92	48.43	45.75	44.84	45.47
MAX	47.97	48.44	48.39	47.12	46.51	42.30	51.18	51.96	50.94	46.65	45.88	46.80
MIN	45.34	46.62	45.34	44.43	42.08	39.56	39.14	47.88	46.46	44.37	44.05	44.06

WTR YR 1980 MEAN 45.82 MAX 51.96 MIN 39.14

12318500 KOOTENAI RIVER NEAR COPELAND, ID--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.
PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1979 to current year.
WATER TEMPERATURES: May 1966 to current year.
SUSPENDED SEDIMENT DISCHARGE: May 1966 to current year.
REMARKS.--Extremes for current year, specific conductance, are based on a partial record. May 27 and June 23, samples taken after Mt. St. Helens May 18, 1980, eruption and ashfall.
EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 293 micromho/cm Mar. 6, 1979; minimum daily, 78 micromho/cm May 1, 1980.
WATER TEMPERATURES: Maximum daily, 24.0°C July 28-30, 1975; minimum daily, 0.0°C on several days during winter periods.
SEDIMENT CONCENTRATIONS: Maximum daily, 740 mg/L May 30, 1966; minimum daily, 1 mg/L on many days since 1968.
SEDIMENT LOADS: Maximum daily, 155,000 tons (140,600 tonnes) May 30, 1966; minimum daily, 5.1 tons (4.6 tonnes) Jan. 31, 1972.
EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 270 micromho/cm Jan. 30; minimum, 78 micromho/cm May 1.
WATER TEMPERATURES: Maximum daily, 19°C July 29-30; minimum daily, 1.0°C Jan. 28, 29, 30.
SEDIMENT CONCENTRATIONS: Maximum daily, 79 mg/L June 20; minimum daily, 1 mg/L Oct. 3-4, Aug. 18, 24, 26, 31, Sep. 2-3, 17, 19-20.
SEDIMENT LOADS: Maximum daily, 6,830 tons (6,190 tonnes) June 20; minimum daily, 14 tons (13 tonnes) Sep. 2, 19-20.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)
OCT 31...	0900	19900	223	7.0	7.5	10.0	2.3	10.4	98	120
NOV 28...	1000	21400	246	8.1	-1.5	6.0	2.2	11.2	96	65
DEC 27...	1000	6060	221	7.8	1.0	4.0	2.2	12.0	98	20
JAN 30...	1100	19900	260	8.1	-15.0	1.0	1.3	13.5	99	K9
MAR 31...	1100	4580	225	7.5	14.0	5.5	3.5	12.9	98	<1
APR 28...	1030	27800	78	7.3	20.0	9.0	8.5	11.5	106	22
MAY 27...	1000	13400	108	7.3	13.0	9.5	4.4	10.7	101	K14
JUN 23...	1100	31800	218	7.8	14.0	13.5	7.6	10.2	103	55
JUL 24...	1000	14700	206	7.7	26.5	17.5	3.4	8.7	96	--
AUG 19...	0930	11600	208	7.5	17.0	16.0	1.8	9.1	98	K6
SEP 30...	0930	14800	210	8.0	16.0	13.0	3.2	10.8	100	K13

DATE	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)
OCT 31...	430	120	26	32	9.1	3.0	5	.1	.5	91
NOV 28...	250	120	22	34	9.1	3.3	6	.1	.6	100
DEC 27...	300	110	17	30	8.2	3.1	8	.1	.6	92
JAN 30...	130	140	31	40	10	3.3	5	.1	.6	110
MAR 31...	K11	120	20	32	8.8	3.5	6	.1	.7	96
APR 28...	30	36	6	10	2.7	1.6	9	.1	.6	30
MAY 27...	K11	51	11	14	3.9	1.8	7	.1	.5	40
JUN 23...	24	110	20	31	8.3	3.1	6	.1	.6	92
JUL 24...	--	100	16	29	7.3	2.2	4	.1	.6	86
AUG 19...	K6	110	9	30	7.7	2.2	4	.1	.6	98
SEP 30...	K7	100	10	28	7.3	2.2	5	.1	.5	90

K Results based on counts outside ideal colony count range.

12318500 KOOTENAI RIVER NEAR COPELAND, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
OCT 31...	20	2.6	.1	4.5	130	127	.18	6990	.08	.000	.41
NOV 28...	22	3.2	.1	4.4	151	137	.21	8730	.10	.010	.38
DEC 27...	19	2.9	.1	6.1	134	126	.18	2200	.16	.000	.35
JAN 30...	22	3.3	.2	4.5	148	150	.20	7950	.08	.000	.51
MAR 31...	21	3.0	.2	5.5	136	133	.19	1680	.03	.130	.20
APR 28...	4.3	.6	.1	8.6	50	47	.07	3750	.19	.000	.42
MAY 27...	6.7	1.6	.1	6.9	72	60	.10	2610	.01	.000	1.2
JUN 23...	18	2.6	.1	5.0	137	124	.19	11800	.07	.040	.33
JUL 24...	14	1.6	.2	4.1	129	111	.18	5120	.09	.000	.50
AUG 19...	20	2.2	.1	4.2	129	126	.18	4040	.02	.000	.62
SEP 30...	14	2.1	.1	4.2	97	113	.13	3880	.00	.000	.55

DATE	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED (MG/L AS C)
OCT 31...	.41	.07	.34	.49	2.2	.010	.03	.000	3.8	--	--
NOV 28...	.39	.00	.46	.49	2.2	.000	.00	.000	5.0	4.2	--
DEC 27...	.35	.16	.19	.51	2.3	.020	.06	.010	--	4.8	--
JAN 30...	.51	.45	.06	.59	2.6	.010	.03	.010	3.9	--	--
MAR 31...	.33	.02	.31	.36	1.6	.020	.06	.010	--	2.4	.3
APR 28...	.42	.09	.33	.61	2.7	.050	.15	.010	5.1	--	--
MAY 27...	1.2	.90	.30	1.2	5.4	.020	.06	.010	24	--	--
JUN 23...	.37	.10	.27	.44	1.9	.040	.12	.000	--	--	--
JUL 24...	.50	.06	.44	.59	2.6	.040	.12	.010	5.8	--	--
AUG 19...	.62	.26	.36	.64	2.8	.010	.03	.010	6.1	--	--
SEP 30...	.55	.37	.18	.55	2.4	.020	.06	.010	--	5.2	.2

12318500 KOOTENAI RIVER NEAR COPELAND, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)
DEC 27...	1	0	1	300	<300	<100	2	1	<1	0	0
MAR 31...	1	0	1	200	<200	<100	0	0	<1	0	0
MAY 27...	1	1	0	<100	0	* <100	0	--	* <1	0	0
JUN 23...	1	0	1	100	<100	* <100	0	--	* <1	0	0
SEP 30...	1	0	1	100	<100	<100	0	--	<1	20	20

DATE	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, SUSPENDED RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)
DEC 27...	0	0	0	<3	0	0	0	490	460	30
MAR 31...	0	2	0	<3	4	4	0	380	330	50
MAY 27...	0	<5	--	* <5	<10	--	* <10	370	360	10
JUN 23...	0	<5	--	* <5	<10	5	* <10	800	780	20
SEP 30...	0	0	--	<3	4	2	2	480	470	10

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)
NOV 28...	--	--	--	--	--	--	--	--	--
DEC 27...	5	5	0	10	<10	<10	.0	.0	.0
JAN 30...	--	--	--	--	--	--	--	--	--
MAR 31...	4	2	2	30	0	30	.1	.1	.0
APR 28...	--	--	--	--	--	--	--	--	--
MAY 27...	6	--	* <10	<50	20	* <10	<1.0	.1	.0
JUN 23...	<5	3	* <10	<50	30	* <10	<1.0	.0	.0
JUL 24...	--	--	--	0	--	--	--	--	--
SEP 30...	1	1	0	20	20	<10	.0	.0	.0

DATE	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
NOV 28...	--	--	--	1	--	--	--	--	--
DEC 27...	0	0	0	0	0	0	40	40	<10
JAN 30...	--	--	--	0	--	--	--	--	--
MAR 31...	0	0	0	0	0	0	10	<10	<10
APR 28...	--	--	--	0	--	--	--	--	--
MAY 27...	0	0	0	0	0	0	50	--	* <5
JUN 23...	0	0	0	0	0	0	<50	20	* <5
JUL 24...	--	--	--	4	--	--	--	--	--
SEP 30...	0	0	0	0	0	0	20	10	10

* The inductively coupled plasma atomic-emission spectroscopy analytical method was used.

12318500 KOOTENAI RIVER NEAR COPELAND, ID--Continued

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV												
28...	1000	21400	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
NOV												
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

12318500 - KOOTENAI RIVER NR COPELAND, ID

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	PERIPHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	PERIPHYTON BIOMASS ASH WEIGHT G/SQ M	CHLOR-A PERIPHYTON CHROMOGRAPHIC FLUOROM (MG/M2)	CHLOR-B PERIPHYTON CHROMOGRAPHIC FLUOROM (MG/M2)	BIOMASS CHLOROPHYLL RATIO PERIPHYTON (UNITS)
DEC					
27...	.080	.000	.160	.000	.00
JUL					
24...	6.61	5.75	1.10	.160	782

ND Not detected.

12318500 KOOTENAI RIVER NEAR COPELAND, ID--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO SEPTEMBER 1980

DATE	NOV 28,79		APR 28,80		MAY 27,80		JUN 23,80		JUL 24,80		SEP 30,80	
TIME	1000		1030		1000		1100		1000		0930	
TOTAL CELLS/ML	380		130		250		190		240		290	
DIVERSITY: DIVISION	0.0		0.5		0.6		0.0		0.5		1.5	
.CLASS	0.0		0.5		0.6		0.0		0.5		1.5	
..ORDER	0.6		0.5		1.1		1.0		1.4		1.8	
...FAMILY	2.8		2.2		1.9		1.5		2.4		2.3	
....GENUS	3.0		2.2		2.5		1.5		2.4		2.3	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)												
.CHLOROPHYCEAE												
..CHLOROCOCCALES												
...CHARACIACEAE												
....SCHROEDERIA	--	-	--	-	--	-	--	-	--	-	13	5
...OOCYSTACEAE												
....CHLORELLA	--	-	13	10	--	-	--	-	--	-	--	-
...SCENEDESMACEAE												
....SCENEDESMUS	--	-	--	-	26	11	--	-	--	-	52#	18
..VOLVOCALES												
...CHLAMYDOMONADACEAE												
....CHLAMYDOMONAS	--	-	--	-	13	5	--	-	--	-	--	-
CHRYSOPHYTA												
.BACILLARIOPHYCEAE												
..CENTRALES												
...COSCINODISCACEAE												
....CYCLOTELLA	50	13	--	-	13	5	120#	60	90#	37	39	14
....MELOSIRA	5	1	--	-	--	-	--	-	--	-	--	-
..PENNALES												
...ACHNANTHACEAE												
....ACHNANTHES	81#	21	--	-	--	-	--	-	--	-	--	-
....COCCONEIS	10	3	--	-	--	-	--	-	--	-	--	-
...CYMBELLACEAE												
....CYMBELLA	25	7	39#	30	26	11	13	7	39#	16	26	9
...DIATOMACEAE												
....DIATOMA	91#	24	39#	30	--	-	--	-	--	-	--	-
...FRAGILARIACEAE												
....ASTERIONELLA	--	-	--	-	52#	21	--	-	--	-	--	-
....SYNEDRA	35	9	26#	20	91#	37	--	-	13	5	13	5
...GOMPHONEMATACEAE												
....GOMPHONEMA	30	8	--	-	--	-	--	-	--	-	--	-
...NAVICULACEAE												
....NAVICULA	30	8	13	10	--	-	51#	27	39#	16	--	-
...NITZSCHIACEAE												
....NITZSCHIA	20	5	--	-	26	11	13	7	39#	16	13	5
CRYPTOPHYTA (CRYPTOMONADS)												
.CRYPTOPHYCEAE												
..CRYPTOMONADALES												
...CRYPTOCHRYSIDACEAE												
....CHROOMONAS	--	-	--	-	--	-	--	-	26	11	130#	45

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

12318500 KOOTENAI RIVER NEAR COPELAND, ID--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	232	238	251	206	254	237	253	78	131	186	219	218
2	232	236	251	197	253	222	247	79	129	181	227	217
3	233	236	247	248	253	221	244	82	128	182	221	218
4	238	240	248	250	258	217	241	82	123	184	217	214
5	234	241	252	255	244	217	239	81	137	180	217	208
6	235	239	252	253	245	218	236	82	141	181	207	202
7	236	237	256	249	241	221	234	82	152	185	211	208
8	241	241	258	249	246	229	230	83	155	184	216	213
9	240	241	258	264	241	230	224	83	174	190	211	216
10	235	248	256	259	253	229	220	88	180	209	217	216
11	238	247	252	260	253	231	227	91	207	206	214	217
12	238	247	258	256	252	229	233	93	206	208	214	221
13	238	245	258	256	252	230	226	98	207	206	213	219
14	242	259	257	257	256	229	224	109	210	207	220	217
15	238	252	263	250	257	230	225	116	197	210	217	221
16	241	249	264	256	263	231	214	114	193	211	214	215
17	240	253	265	255	266	227	161	115	156	209	220	211
18	239	250	259	---	261	229	164	112	199	---	219	210
19	240	252	248	---	262	231	153	111	210	---	222	213
20	237	256	242	256	251	232	137	123	230	---	213	214
21	236	260	245	256	252	237	123	115	240	---	213	213
22	240	253	244	257	249	240	117	113	241	---	214	---
23	236	252	208	249	248	239	114	113	243	---	215	---
24	235	256	198	259	252	233	107	113	235	---	218	---
25	232	251	198	244	247	243	99	122	223	216	217	---
26	232	250	182	247	247	246	89	114	222	211	215	---
27	235	257	198	251	249	246	87	123	211	214	217	---
28	232	258	200	251	250	246	88	118	208	213	212	---
29	235	254	---	250	251	247	85	124	204	217	214	---
30	235	258	211	270	---	254	83	118	199	216	212	213
31	237	---	211	268	---	257	---	125	---	218	217	---
MEAN	237	249	240	251	252	233	178	103	190	201	216	214

WTR YR 1980 MEAN 213 MAX 270 MIN 78

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.0	9.0	5.0	5.0	2.0	5.0	6.0	9.0	13.0	15.0	17.0	14.0
2	14.0	9.0	6.0	5.0	3.0	5.0	8.0	10.0	12.0	13.0	17.0	14.0
3	10.0	7.0	6.0	5.0	4.0	5.0	5.0	10.0	12.0	16.0	16.0	11.0
4	12.0	9.0	7.0	5.0	4.0	3.0	7.0	10.0	11.0	15.0	15.0	12.0
5	11.0	9.0	6.0	4.0	6.0	2.0	7.0	10.0	11.0	13.0	17.0	12.0
6	14.0	9.0	6.0	3.0	6.0	3.0	7.0	12.0	14.0	14.0	16.0	17.0
7	11.0	9.0	6.0	3.0	6.0	4.0	8.0	15.0	14.0	14.0	16.0	17.0
8	11.0	9.0	7.0	2.0	4.0	4.0	5.0	10.0	11.0	16.0	15.0	16.0
9	11.0	8.0	7.0	2.0	4.0	4.0	6.0	10.0	16.0	18.0	16.0	17.0
10	11.0	6.0	6.0	2.0	4.0	4.0	7.0	12.0	16.0	17.0	17.0	18.0
11	11.0	6.0	4.0	2.0	4.0	4.0	6.0	10.0	16.0	17.0	17.0	15.0
12	12.0	6.0	4.0	2.0	4.0	5.0	14.0	9.0	16.0	18.0	18.0	16.0
13	12.0	7.0	4.0	3.0	3.0	6.0	9.0	10.0	17.0	14.0	18.0	15.0
14	14.0	7.0	5.0	4.0	2.0	8.0	8.0	10.0	17.0	16.0	18.0	16.0
15	12.0	7.0	7.0	4.0	3.0	9.0	11.0	11.0	17.0	16.0	17.0	16.0
16	13.0	7.0	5.0	4.0	3.0	9.0	8.0	12.0	17.0	17.0	17.0	11.0
17	14.0	8.0	4.0	3.0	4.0	5.0	10.0	13.0	16.0	15.0	18.0	14.0
18	13.0	9.0	4.0	3.0	4.0	5.0	10.0	11.0	16.0	15.0	15.0	14.0
19	9.0	9.0	5.0	3.0	5.0	6.0	11.0	11.0	14.0	16.0	17.0	14.0
20	11.0	8.0	6.0	3.0	4.0	6.0	10.0	12.0	17.0	16.0	15.0	13.0
21	11.0	10.0	6.0	3.0	4.0	5.0	11.0	15.0	12.0	15.0	15.0	13.0
22	9.0	7.0	5.0	3.0	4.0	5.0	11.0	14.0	14.0	16.0	16.0	14.0
23	10.0	7.0	5.0	3.0	5.0	7.0	10.0	15.0	11.0	14.0	16.0	13.0
24	10.0	6.0	5.0	4.0	5.0	7.0	10.0	15.0	12.0	15.0	16.0	11.0
25	10.0	8.0	5.0	3.0	5.0	7.0	14.0	15.0	12.0	17.0	15.0	10.0
26	9.0	6.0	4.0	2.0	4.0	8.0	9.0	12.0	12.0	16.0	15.0	10.0
27	11.0	6.0	4.0	2.0	5.0	9.0	10.0	12.0	14.0	18.0	17.0	11.0
28	9.0	6.0	6.0	1.0	4.0	5.0	10.0	12.0	13.0	17.0	16.0	13.0
29	7.0	5.0	5.0	1.0	7.0	6.0	9.0	11.0	13.0	19.0	14.0	14.0
30	7.0	4.0	5.0	1.0	---	6.0	10.0	15.0	14.0	19.0	14.0	14.0
31	8.0	---	5.0	2.0	---	7.0	---	16.0	---	17.0	14.0	---
MEAN	11.0	7.5	5.5	3.0	4.0	5.5	9.0	12.0	14.0	16.0	16.0	14.0

WTR YR 1980 MEAN 10.0 MAX 19.0 MIN 1.0

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	4	82	15	822	7	401	24	406	3	148	5	85
2	2	48	14	782	6	345	30	434	4	146	8	138
3	1	23	9	496	7	378	10	154	6	159	6	103
4	1	22	5	227	9	505	2	51	11	230	9	149
5	3	60	6	224	9	522	3	74	4	71	8	128
6	6	155	12	645	8	471	4	58	4	58	7	108
7	1	23	12	680	8	471	8	156	7	103	15	233
8	1	13	12	687	6	469	10	437	11	336	17	263
9	7	217	11	633	8	404	8	350	7	214	14	212
10	15	311	11	639	12	710	8	350	5	75	9	137
11	2	44	10	462	8	477	5	220	6	90	11	168
12	2	51	6	264	9	513	4	170	6	183	16	223
13	6	261	8	447	7	357	5	85	6	186	20	254
14	13	649	9	508	17	966	6	112	9	287	23	291
15	9	377	4	231	22	1280	5	217	7	342	25	327
16	4	153	4	238	10	583	7	283	6	259	21	270
17	5	200	4	239	8	464	4	144	6	92	8	99
18	6	266	5	293	8	471	3	108	4	59	5	72
19	6	258	6	358	9	527	4	135	4	72	14	222
20	6	288	5	282	17	991	5	78	8	153	14	196
21	8	346	4	192	9	522	5	81	14	206	4	51
22	7	244	8	395	9	435	11	359	12	171	3	37
23	5	185	6	249	28	975	25	672	12	169	4	49
24	8	311	4	212	32	704	10	343	3	41	3	38
25	10	497	6	346	29	500	19	652	5	68	4	50
26	10	443	5	292	30	458	9	289	3	46	3	36
27	14	552	6	348	25	387	5	144	4	55	4	57
28	11	445	5	289	24	366	7	369	3	47	5	75
29	5	133	3	172	23	683	5	266	2	33	4	53
30	8	361	3	172	24	517	4	217	---	---	4	51
31	14	748	---	---	23	351	5	247	---	---	5	62
TOTAL	---	7756	---	11826	---	17265	---	7661	---	4099	---	4237

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6	77	35	2610	13	366	8	178	5	196	2	29
2	7	88	27	1920	8	251	5	98	6	150	1	14
3	7	85	23	1620	2	63	6	111	8	117	1	18
4	5	61	20	1370	2	60	6	108	3	43	2	33
5	4	50	25	1630	5	153	5	88	5	125	2	31
6	5	64	12	778	7	204	6	108	5	129	3	60
7	6	79	13	835	8	285	6	105	5	135	2	43
8	6	80	9	539	7	261	6	158	5	136	2	38
9	6	80	7	391	9	350	14	541	5	129	4	136
10	4	54	9	503	23	1420	14	590	4	58	3	104
11	4	55	6	305	22	1440	13	551	4	58	3	104
12	5	70	5	229	20	1320	7	297	6	149	4	137
13	4	57	6	249	14	934	6	222	4	96	4	122
14	3	46	4	159	12	677	6	238	3	71	3	46
15	6	110	5	193	6	209	11	472	5	117	4	55
16	5	114	7	259	8	274	11	448	3	69	2	27
17	8	196	7	255	15	814	11	463	2	28	1	19
18	7	198	5	180	21	1350	13	600	1	15	2	28
19	7	248	8	289	50	3430	10	394	4	106	1	14
20	9	372	10	359	79	6830	5	94	6	170	1	14
21	9	413	7	251	55	4840	5	110	6	206	3	47
22	9	428	7	259	45	3900	9	328	2	68	3	57
23	13	639	4	141	44	3760	11	678	2	63	4	133
24	27	1530	3	97	32	2750	10	397	1	29	3	57
25	44	3020	4	122	16	1140	7	215	2	31	3	59
26	38	2550	5	166	13	797	5	155	1	17	4	132
27	34	2320	8	281	10	548	5	82	3	47	5	174
28	35	2580	5	163	8	292	5	73	3	45	3	75
29	44	3540	3	91	6	145	10	294	2	51	2	35
30	52	4280	6	177	9	190	12	431	2	58	5	166
31	---	---	9	265	---	---	8	313	1	27	---	---
TOTAL	---	23484	---	16686	---	39493	---	8740	---	2739	---	2007

TOTAL LOAD FOR YEAR: 146003 TONS.

12321500 BOUNDARY CREEK NEAR PORTHILL, ID
(International gaging station)

LOCATION.--Lat 48°59'50", long 116°34'05", in SW¼NW¼SW¼ sec.11, T.65 N., R.2 W., Boundary County, Hydrologic Unit 17010104, on left bank near mouth of canyon, 0.2 mi (0.3 km) south of international boundary, 3 mi (4.8 km) west of Porthill, and at mile 3.5 (5.6 km).

DRAINAGE AREA.--97 mi² (251 km²), approximately.

PERIOD OF RECORD.--May 1928 to current year (no winter records 1929, 1930).

GAGE.--Water-stage recorder. Altitude of gage is 1,770 ft (539.5 m) from topographic map. Prior to Apr. 24, 1929, nonrecording gage at site 140 ft (42.7 m) upstream at different datum.

REMARKS.--Records fair. Diversion above station.

COOPERATION.--This station is maintained by the United States under agreement with Canada. Three discharge measurements per year furnished by Water Survey of Canada.

AVERAGE DISCHARGE.--50 years (water years 1930-80), 196 ft³/s (5.55 m³/s), 27.44 in/yr (697.0 mm/yr); 142,000 acre-ft/yr (175 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,540 ft³/s (100 m³/s) June 2 1968, gage height, 6.00 ft (1.829 m), from rating curve extended above 2,000 ft³/s); minimum, 5 ft³/s (142 dm³/s) sometime between Nov. 10 and Dec. 3, 1936; minimum gage height, 0.24 ft (0.073 m) Nov. 22, 1952.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1300 ft³/s (36.8 m³/s) and maximum(*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 29	unknown	*3270	92.6	5.79	1.765

Minimum discharge, 11 ft³/s (0.312 m³/s) Nov. 14, gage height, 0.75 ft (0.229 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 2-4, 15-18 Nov. 23 to Dec. 7, Jan. 4 to Feb. 6)

0.8	15	2.5	346
1.0	27	3.0	574
1.2	45	3.5	897
1.6	101	4.0	1,310
2.0	189	5.0	2,340
		6.0	3,540

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	33	22	51	33	75	45	2650	390	156	44	37
2	18	33	50	50	34	74	46	2600	395	143	44	113
3	17	33	70	48	36	72	51	2580	385	136	63	97
4	17	33	65	46	36	70	55	2520	353	127	48	68
5	17	34	50	41	35	68	63	2450	328	121	45	56
6	17	33	42	30	34	64	72	2350	314	114	48	51
7	17	23	35	23	32	60	74	2200	295	107	45	49
8	17	29	33	22	31	56	71	2050	275	101	42	45
9	17	23	68	23	31	54	70	1850	260	95	42	42
10	17	31	69	24	31	52	78	1700	240	98	42	39
11	17	23	71	26	31	49	86	1500	245	112	37	38
12	17	27	50	29	31	47	98	1350	245	96	40	36
13	17	18	44	32	31	46	110	1200	240	90	41	40
14	17	16	58	36	28	46	140	1050	280	89	38	44
15	18	16	93	41	28	44	185	970	240	94	37	36
16	18	19	151	40	28	42	330	910	215	86	34	35
17	27	24	235	39	28	41	370	850	200	101	36	32
18	25	28	147	37	31	40	440	820	185	85	142	31
19	26	27	110	35	40	40	510	780	175	93	83	38
20	24	24	76	35	39	40	540	740	165	80	62	106
21	23	24	68	36	38	40	550	721	160	74	58	72
22	23	21	64	36	35	42	570	710	160	69	50	56
23	42	21	62	37	33	45	690	690	170	65	44	52
24	53	20	60	37	32	44	900	660	165	61	41	46
25	94	20	58	35	32	43	1100	620	155	58	37	44
26	86	19	56	32	33	42	1350	560	160	55	36	42
27	94	18	55	30	40	41	1600	475	170	53	36	40
28	94	17	54	29	55	41	2100	400	155	51	50	39
29	65	16	53	26	65	42	3100	381	150	48	49	38
30	52	16	52	28	---	43	2750	380	168	46	41	37
31	44	---	52	30	---	45	---	385	---	44	38	---
TOTAL	1048	719	2173	1066	1011	1548	18144	39102	7038	2748	1492	1501
MEAN	33.8	24.0	70.1	34.4	34.9	49.9	605	1261	235	88.6	48.1	50.0
MAX	94	34	235	51	65	75	3100	2650	395	156	142	113
MIN	17	16	22	22	28	40	45	380	150	44	34	31
CFSM	.35	.25	.72	.36	.36	.51	6.24	13.0	2.42	.91	.50	.52
IN.	.40	.28	.83	.41	.39	.59	6.96	15.0	2.70	1.05	.57	.58
AC-FT	2080	1430	4310	2110	2010	3070	35990	77560	13960	5450	2960	2980

CAL YR 1979 TOTAL 45394 MEAN 124 MAX 1270 MIN 16 CFSM 1.28 IN 17.41 AC-FT 90040
WTR YR 1980 TOTAL 77590 MEAN 212 MAX 3100 MIN 16 CFSM 2.19 IN 29.76 AC-FT 153900

NOTE.--No gage-height record Dec. 20 to Jan. 2, Feb. 24 to June 30, Sept. 26-30.

12322000 KOOTENAI RIVER AT PORTHILL, ID
(International gaging station)

LOCATION.--Lat 49°00'00", long 116°30'10", in NE¼NW¼SW¼ sec.8, T.65 N., R.1 W., Boundary County, Hydrologic Unit 17010104, on right bank 300 ft (91.4 m) south of international boundary at Porthill, and at mile 105.63 (170 km).

DRAINAGE AREA.--13,700 mi² (35.480 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May to July 1904 and October 1927 to March 1928 (elevations only), and April 1928 to current year in reports of Geological Survey. October 1924 to September 1927 (gage heights only) in reports of Water Survey of Canada, Department of Energy, Mines and Resources.

REVISED RECORDS.--SWD ID 1971-75(m).

GAGE.--Water-stage recorder. Datum of gage is 1,700.00 ft (518.160 m) Topographic Division Datum of 1928. Gage readings have been reduced to that datum. National Geodetic Vertical Datum of 1929 and datum of Geodetic Survey of Canada are 0.03 ft (0.091 m) higher. Prior to May 17, 1928, nonrecording gages at approximately same site. Datum of gages prior to July 28, 1928, 38.34 ft (11.686 m) higher, except in 1904 when different datum was used.

REMARKS.--Records fair. Daily discharge represents entire flow passing international boundary, and is computed by adding tributary inflow for intervening area to flow at station near Copeland and correcting for channel storage between stations near Copeland and at Porthill. Boundary dike of Reclamation Farm and U.S. Forest Service roadway dike (south side of Boundary Creek) remained intact and flow of river was confined throughout year to main channel on which gage is located. Elevations affected by backwater from Kootenay Lake. No drainage dike failed during year. Flow regulated by Libby Dam started on Mar. 21, 1972.

COOPERATION.--This station is maintained by the United States under agreement with Canada.

AVERAGE DISCHARGE.--52 years, 15,900 ft³/s (450 m³/s), 15.76 in/yr (400.3 mm/yr), 11,520,000 acre-ft/yr (14,200 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 125,000 ft³/s (3,540 m³/s) June 1, 1948; maximum elevation, 1,767.61 ft (538.768 m) June 7, 1961; minimum daily discharge, 1,380 ft³/s (39.1 m³/s) Feb. 8, 1936; minimum elevation, 1,738.21 ft (529.806 m) Apr. 3, 1944.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation known, 1,772.7 ft (540.319 m) in June 1894, present datum.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 37,200 ft³/s (1,054 m³/s) Apr. 30; maximum elevation, 1,750.91 ft (533.677 m) May 8; minimum daily discharge, 4,630 ft³/s (131.1 m³/s) Mar. 26; minimum elevation, 1,738.97 ft (530.038 m) Apr. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7700	20400	21200	6370	18500	6510	4980	34400	12100	8760	14600	5640
2	8880	20800	21400	5510	13900	6580	4790	32800	12700	7850	9610	5600
3	8670	20500	20300	5820	10400	6560	4670	32400	12700	7410	5740	7020
4	8250	17000	21000	9570	7990	6370	4700	31500	12200	7140	5440	6320
5	7500	14000	21600	9230	6660	6100	4820	30200	12300	6940	9250	5950
6	9530	19700	21900	5650	5540	5930	4900	29600	11800	7110	9700	7480
7	8560	20900	21900	7320	5610	5930	5000	29100	14000	6930	10100	8070
8	4920	21200	21800	16000	11300	5900	5100	27300	14600	10000	10200	7170
9	11300	21300	21700	16200	11300	5800	5070	25400	15100	14300	9710	12400
10	7730	21600	22000	16200	5860	5800	5190	25000	23000	15700	5660	12900
11	8080	17300	22300	16300	5670	5820	5340	22800	24700	16000	5510	12900
12	9450	16600	21300	15800	11300	5320	5440	20600	25000	15900	9160	12700
13	15800	20500	19300	6650	11500	4890	5560	18700	25300	14100	9020	11400
14	18300	20900	21100	7040	11900	4810	6080	17500	21800	14900	8860	5930
15	15500	21400	21700	15900	18000	5020	7180	16900	14000	16000	8730	5150
16	14300	22000	22100	15100	15800	4960	9160	16100	13500	15300	8640	5090
17	14900	22100	22100	13500	6200	4770	9960	15700	20300	15800	5440	6920
18	16300	21800	22100	13400	5640	5470	11500	15400	24000	17200	5760	5350
19	16000	22100	21900	12700	6770	6000	14200	15400	29600	14900	9840	5210
20	17700	21000	21800	6180	7250	5340	16400	15200	32100	7610	10600	5510
21	16000	18100	21700	6240	5710	4930	18200	15200	32800	8450	12700	5950
22	13200	18200	18300	12100	5480	4820	18900	15400	32500	13400	12700	7090
23	13800	15700	13500	10200	5410	4710	19800	14900	32200	16100	11900	12200
24	14500	19500	8390	12600	5210	4800	22900	13800	32200	14800	10700	7280
25	18500	21300	6550	12800	5200	4760	27600	12800	27100	11700	6010	7390
26	16600	21600	5830	12000	5790	4630	28200	14100	23400	11700	6560	12100
27	15000	21500	5760	10900	5180	5370	29100	14300	20800	6500	5900	13000
28	15200	21500	5910	19200	5880	5700	32100	13300	14300	5620	5710	9520
29	10200	21200	11000	19500	6230	5100	36700	12300	9700	10800	9400	6750
30	16600	21200	8210	20000	---	4880	37200	12000	8460	13300	10700	12100
31	19700	---	5790	18200	---	4770	---	12000	---	14500	10100	---
TOTAL	398670	602900	541440	374180	247180	168370	410740	622100	603260	366720	273950	248090
MEAN	12860	20100	17470	12070	8523	5431	13690	20070	20110	11830	8837	8270
MAX	19700	22100	22300	20000	18500	6580	37200	34400	32800	17200	14600	13000
MIN	4920	14000	5760	5510	5180	4630	4670	12000	8460	5620	5440	5090
AC-FT	790800	1196000	1074000	742200	490300	334000	814700	1234000	1197000	727400	543400	492100

CAL YR 1979 TOTAL 4183810 MEAN 11460 MAX 26900 MIN 4160 AC-FT 8299000
WTR YR 1980 TOTAL 4857600 MEAN 13270 MAX 37200 MIN 4630 AC-FT 9635000

12322000 KOOTENAI RIVER AT PORTHILL, ID--Continued

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45.28	47.03	47.13	45.34	45.64	42.21	39.23	49.06	47.36	46.28	44.99	43.97
2	45.35	46.98	47.24	45.29	45.01	42.20	39.16	49.30	47.34	45.91	44.52	44.03
3	45.24	47.03	47.07	45.30	44.09	42.18	39.08	49.58	47.18	45.57	44.22	44.16
4	45.16	46.74	47.02	45.42	43.78	42.09	39.05	49.82	46.94	45.33	44.17	44.14
5	45.11	46.43	47.05	45.40	43.74	42.11	39.03	50.00	46.75	45.16	44.43	44.17
6	45.28	46.95	47.02	45.08	43.56	42.02	39.04	50.44	46.51	44.69	44.39	44.30
7	45.28	47.17	47.02	44.99	43.44	41.99	39.15	50.84	46.50	44.56	44.38	44.42
8	45.06	47.26	46.93	45.54	43.65	41.93	39.18	50.88	46.39	44.59	44.37	44.43
9	45.54	47.27	46.82	45.63	43.71	41.83	39.24	50.78	46.30	45.04	44.34	44.92
10	45.33	47.25	46.91	45.74	43.32	41.76	39.34	50.74	47.14	45.27	44.07	45.10
11	45.41	46.92	46.84	45.80	43.20	41.71	39.37	50.43	47.44	45.33	44.05	45.22
12	45.55	46.45	46.77	45.81	43.42	41.63	39.36	50.04	47.49	45.38	44.34	45.32
13	46.14	46.97	46.30	45.33	43.50	41.50	39.41	49.64	47.53	45.07	44.34	45.36
14	46.59	47.00	46.50	45.25	43.50	41.46	39.49	49.38	47.26	45.13	44.34	45.06
15	46.62	47.06	46.74	45.76	43.85	41.37	39.73	49.19	46.36	45.33	44.38	45.05
16	46.45	47.14	46.54	45.81	44.34	41.19	40.04	49.03	46.03	45.35	44.41	45.00
17	46.45	47.24	46.52	45.64	43.48	41.02	40.24	48.94	46.65	45.42	44.14	45.14
18	46.67	47.22	46.70	45.54	43.31	40.97	40.58	48.89	47.24	45.61	44.21	45.04
19	46.56	47.25	46.92	45.36	43.23	40.90	41.12	48.87	47.76	45.48	44.51	44.99
20	46.76	47.18	46.91	44.70	43.08	40.79	41.72	48.84	48.38	44.66	44.64	45.15
21	46.77	46.66	46.79	44.41	42.75	40.65	42.24	48.83	48.74	44.47	44.88	45.30
22	46.39	46.85	46.31	44.56	42.55	40.42	42.60	49.00	48.85	44.91	44.89	45.40
23	46.40	46.44	45.55	44.27	42.33	40.24	43.07	48.93	48.97	45.28	44.77	45.82
24	46.38	46.73	45.39	44.59	42.14	40.14	44.06	48.68	49.10	45.37	44.68	45.51
25	46.62	47.10	45.35	44.60	42.01	40.02	45.36	48.44	48.78	45.08	44.17	45.43
26	46.64	47.18	45.29	44.56	42.02	39.90	45.74	48.26	48.33	44.98	44.13	45.78
27	46.44	47.16	45.51	44.23	42.02	39.89	46.37	48.22	48.18	44.48	44.01	45.87
28	46.52	47.09	45.28	44.97	42.09	39.81	47.34	47.98	47.48	44.27	43.99	45.63
29	46.15	47.08	45.49	45.41	42.17	39.65	48.85	47.74	46.85	44.62	44.23	45.41
30	46.62	47.06	45.31	45.72	---	39.55	49.31	47.59	46.50	44.85	44.36	45.96
31	46.99	---	45.30	45.96	---	39.40	---	47.46	---	45.01	44.32	---
MEAN	46.06	47.00	46.40	45.23	43.27	41.05	41.58	49.22	47.41	45.12	44.38	45.04
MAX	46.99	47.27	47.24	45.96	45.64	42.21	49.31	50.88	49.10	46.28	44.99	45.96
MIN	45.06	46.43	45.28	44.23	42.01	39.40	39.03	47.46	46.03	44.27	43.99	43.97

WTR YR 1980 MEAN 45.16 MAX 50.88 MIN 39.03

12322000 KOOTENAI RIVER AT PORTHILL, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1949-50, 1963 to current year.
PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: January 1949 to September 1950, May 1963 to current year.
INSTRUMENTATION.--Temperature recorder since May 23, 1963.
REMARKS.--Miscellaneous chemical data published for water years 1949-50.
EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 23.5°C July 27, 1975; minimum, 0.0°C on many days during winter months.
EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 20°C July 28; minimum, 0.0°C Jan. 9-10, 23-31, and Feb. 1-4.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	15.5	15.5	9.5	9.0	5.0	5.0	4.0	4.0	.0	.0	3.5	3.5
2	15.5	15.5	9.0	9.0	5.5	5.5	4.0	4.0	.0	.0	4.0	3.5
3	15.5	14.5	9.0	9.0	5.5	5.5	4.0	3.5	.0	.0	4.0	4.0
4	14.5	14.0	9.0	9.0	5.5	5.5	3.5	3.5	.0	.0	4.0	4.0
5	14.0	14.0	9.0	9.0	6.0	6.0	3.5	3.5	.5	.5	4.0	4.0
6	14.0	13.5	9.0	9.0	6.0	6.0	3.5	3.0	.5	.5	4.5	4.0
7	13.5	13.5	9.0	9.0	6.0	6.0	3.0	3.0	1.0	.5	4.0	4.0
8	13.5	13.5	9.0	9.0	6.0	6.0	3.0	2.0	1.0	1.0	4.0	3.5
9	13.5	13.0	9.0	9.0	6.0	6.0	2.0	.0	1.5	1.0	3.5	3.0
10	13.0	13.0	9.0	9.0	6.0	6.0	.5	.0	1.5	1.5	3.0	3.0
11	13.0	13.0	9.0	8.5	6.5	6.0	.5	.5	1.5	1.5	3.5	3.0
12	13.0	12.0	8.5	8.5	6.0	5.0	.5	.5	1.5	1.5	4.0	3.5
13	12.0	12.0	8.5	8.0	5.0	5.0	.5	.5	1.5	1.5	4.5	4.0
14	13.0	12.0	8.0	7.0	5.0	5.0	.5	.5	1.5	1.5	5.0	4.5
15	13.0	13.0	7.0	7.0	5.0	5.0	1.0	.5	2.0	1.5	5.0	4.5
16	13.0	13.0	7.0	7.0	5.0	5.0	1.0	1.0	1.5	.5	5.5	5.0
17	13.0	13.0	7.0	7.0	5.0	4.5	1.5	1.0	.5	.5	5.5	5.5
18	13.0	13.0	7.0	7.0	4.5	4.5	2.0	1.5	1.0	.5	6.0	5.5
19	13.0	12.0	7.0	7.0	5.0	4.5	2.0	1.5	1.0	1.0	5.5	5.5
20	12.0	11.0	7.0	7.0	5.0	5.0	1.5	1.5	1.5	1.0	5.5	5.5
21	11.0	11.0	7.0	6.5	5.0	5.0	1.5	1.5	2.0	1.5	5.5	5.5
22	11.0	11.0	6.5	6.0	5.0	5.0	1.5	.5	2.0	2.0	6.0	5.5
23	11.0	11.0	6.0	6.0	5.0	5.0	.5	.0	3.0	2.0	6.0	5.5
24	11.0	10.5	6.0	6.0	5.0	5.0	.0	.0	3.0	3.0	7.0	6.0
25	10.5	10.5	6.0	6.0	5.0	5.0	.0	.0	3.5	3.5	8.0	6.5
26	10.5	10.5	6.0	6.0	5.0	5.0	.0	.0	3.5	3.5	7.0	7.0
27	10.5	10.5	6.0	6.0	5.0	4.5	.5	.0	3.5	3.5	8.0	7.0
28	10.5	10.5	6.0	5.5	4.5	4.5	.5	.0	3.5	3.5	8.0	7.0
29	10.5	10.5	5.5	5.0	4.5	4.0	.0	.0	3.5	3.5	8.0	7.0
30	10.0	10.0	5.0	5.0	4.0	4.0	.5	.0	---	---	7.0	7.0
31	10.0	9.5	---	---	4.0	4.0	.5	.0	---	---	8.0	6.5
MONTH	15.5	9.5	9.5	5.0	6.5	4.0	4.0	.0	3.5	.0	8.0	3.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.0	6.5	9.5	9.5	12.0	11.5	14.0	13.5	19.0	18.0	15.0	14.5
2	7.0	6.5	9.5	9.0	12.0	11.5	14.5	14.0	18.0	16.5	14.5	14.5
3	8.5	6.5	9.5	9.0	12.0	11.5	15.0	14.5	17.0	16.5	14.5	14.0
4	8.5	6.5	9.5	9.5	12.0	12.0	16.0	15.0	17.0	16.5	14.0	13.5
5	8.0	6.5	10.0	9.5	12.0	11.5	16.5	16.0	17.0	16.5	14.5	14.0
6	8.5	7.0	10.0	10.0	11.5	11.0	16.5	16.0	17.0	17.0	14.5	14.5
7	8.0	7.0	10.5	10.0	11.0	11.0	17.0	16.0	17.0	17.0	14.5	14.5
8	8.0	7.0	10.5	10.0	12.0	11.0	16.5	16.5	17.0	16.5	15.5	14.5
9	8.0	7.0	10.0	9.5	13.0	12.0	16.5	16.5	16.5	16.5	15.5	15.5
10	8.0	7.0	9.5	9.5	14.0	13.0	16.5	16.0	18.0	16.5	15.5	15.0
11	8.5	7.0	9.5	9.0	14.5	14.0	16.0	15.5	18.0	16.5	15.0	15.0
12	8.5	7.0	9.5	9.5	14.5	14.0	15.5	14.5	18.0	17.0	15.0	15.0
13	8.5	7.0	9.5	10.0	14.5	14.5	14.5	14.0	19.0	18.0	15.0	15.0
14	8.5	7.0	10.0	10.5	14.5	14.0	14.0	14.0	19.0	18.5	15.5	15.0
15	9.0	8.5	10.5	10.5	14.0	14.0	15.0	14.0	19.5	19.0	16.0	15.0
16	10.0	9.0	10.5	11.0	14.0	14.0	15.0	14.5	19.5	19.0	15.5	15.5
17	10.5	9.5	11.0	11.0	15.5	14.0	14.5	13.5	19.0	18.5	15.5	15.0
18	10.5	10.0	11.0	11.5	16.5	15.5	14.0	14.0	18.5	18.5	15.0	15.0
19	10.0	9.5	11.5	11.5	15.5	14.5	15.0	14.0	18.5	18.0	15.0	15.0
20	9.5	9.5	11.5	12.0	14.5	12.0	15.5	14.5	18.0	17.0	15.0	14.0
21	9.5	9.5	12.0	11.5	12.0	11.5	16.0	14.5	17.0	15.5	14.0	14.0
22	9.5	9.0	12.0	11.5	11.5	11.0	15.5	15.0	15.5	14.5	14.0	14.0
23	9.0	9.0	12.0	11.0	12.0	11.5	18.0	15.5	14.5	14.5	14.0	13.5
24	9.0	9.0	11.5	10.0	11.5	11.0	18.0	18.0	15.5	14.5	13.5	12.0
25	9.5	9.0	11.5	10.0	11.0	11.0	18.0	18.0	15.5	15.0	12.0	12.0
26	9.5	8.5	11.0	10.0	11.0	11.0	18.5	18.0	15.5	15.0	12.0	11.5
27	9.0	8.5	10.0	10.0	12.0	11.0	19.0	18.0	15.5	15.5	12.0	11.5
28	9.5	9.0	10.0	10.0	13.0	12.0	20.0	18.5	15.5	15.5	12.0	12.0
29	9.5	9.5	10.5	10.0	13.0	13.0	19.0	18.5	16.0	15.5	12.0	12.0
30	10.0	9.5	11.0	10.5	13.5	13.0	19.0	19.0	16.0	15.5	13.0	12.0
31	---	---	11.5	11.0	---	---	19.5	19.0	15.5	15.0	---	---
MONTH	10.5	6.5	12.0	9.0	16.5	11.0	20.0	13.5	19.5	14.5	16.0	11.5
YEAR	20.0	.0										

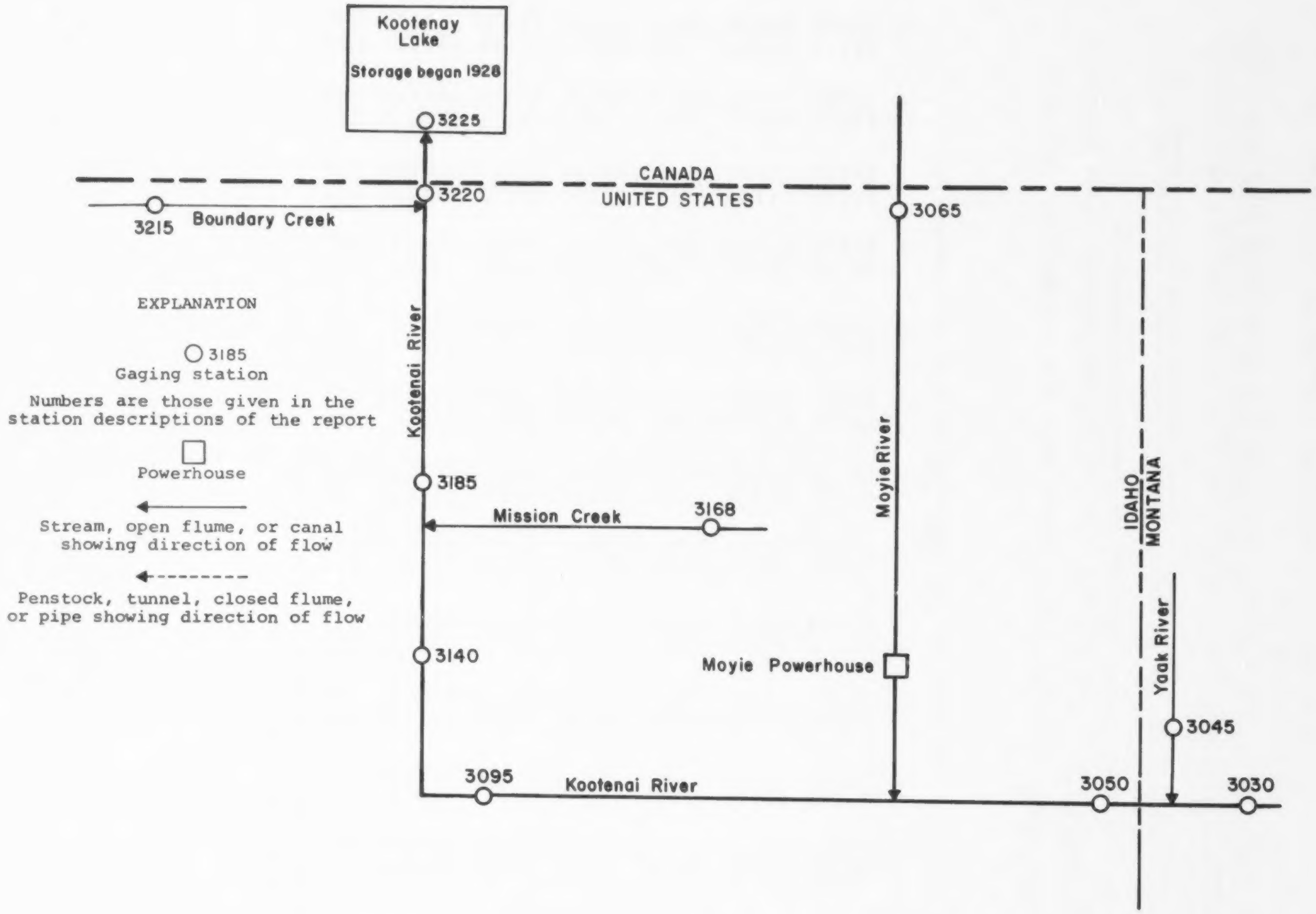

FIGURE 10.--Gaging stations in Kootenai River basin.

12322500 KOOTENAY LAKE AT KUSKONOOK, BRITISH COLUMBIA

LOCATION.--Lat 49°17'56", long 116°39'31", on east shore of lake at Kuskonook and at mile 74.5 (119.9 km).

PERIOD OF RECORD.--April 1936 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,735.20 ft (528.889 m) National Geodetic Vertical Datum of 1929, which is the same at Porthill as datum of 1929, supplementary adjustment of 1947, and 0.03 ft (0.009 m) higher than datum in use at station Kootenai River at Porthill. Gage heights have been reduced to elevations above datum in use at station Kootenai River at Porthill. Prior to Apr. 25, 1938, nonrecording gage at same site at datum 3.00 ft (0.914 m) higher.

REMARKS.--Elevation is subject to partial regulation by Corra Linn Dam on Kootenay River below outlet. Major inflow is from Kootenai River (see sta 12322000). Diversions for irrigation of about 14,600 acres (5,910 hm²) above Kootenay Lake.

COOPERATION.--This station is maintained by Canada under agreement with the United States.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,762.42 ft (537.186 m) June 9, 1961; minimum daily, 1,737.86 ft (529.700 m) Apr. 5, 6, 1944.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,748.89 ft (533.062 m) May 9; minimum daily, 1,738.64 ft (529.938 m) Apr. 5.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44.96	45.65	45.66	45.09	44.05	41.75	38.86	45.38	46.56	45.80	44.00	43.72
2	44.95	45.59	45.73	45.09	43.92	41.76	38.76	45.90	46.50	45.51	43.97	43.74
3	44.87	45.67	45.64	45.06	43.74	41.73	38.70	46.45	46.35	45.23	43.93	43.80
4	44.81	45.69	45.62	44.98	43.47	41.67	38.67	46.92	46.16	45.00	43.89	43.85
5	44.80	45.65	45.52	44.98	43.34	41.67	38.64	47.36	45.96	44.76	43.84	43.89
6	44.82	45.67	45.47	44.85	43.26	41.57	38.70	47.85	45.74	44.46	43.80	43.93
7	44.90	45.75	45.44	44.73	43.14	41.52	38.76	48.36	45.55	44.14	43.77	44.02
8	44.91	45.83	45.33	44.67	43.06	41.49	38.78	48.70	45.36	44.00	43.76	44.09
9	44.95	45.78	45.27	44.73	43.05	41.43	38.84	48.84	45.23	44.02	43.80	44.17
10	45.04	45.77	45.28	44.83	43.00	41.38	38.93	48.83	45.20	44.11	43.81	44.32
11	45.08	45.70	45.17	44.92	42.88	41.29	38.94	48.73	45.26	44.16	43.79	44.45
12	45.15	45.54	45.15	45.00	42.81	41.22	38.93	48.56	45.31	44.16	43.81	44.58
13	45.25	45.54	45.08	45.03	42.84	41.15	38.96	48.36	45.34	44.11	43.84	44.72
14	45.45	45.57	45.01	44.96	42.89	41.11	39.01	48.17	45.41	44.08	43.86	44.78
15	45.67	45.58	45.04	44.95	42.98	40.99	39.11	48.03	45.35	44.15	43.89	44.80
16	45.68	45.59	44.94	44.94	43.11	40.80	39.22	47.91	45.23	44.24	43.93	44.77
17	45.67	45.67	45.01	44.87	43.12	40.63	39.32	47.82	45.18	44.32	43.92	44.80
18	45.67	45.70	45.04	44.75	43.02	40.54	39.46	47.79	45.22	44.33	43.94	44.83
19	45.69	45.70	45.07	44.59	42.84	40.49	39.59	47.77	45.27	44.32	43.95	44.82
20	45.72	45.65	45.10	44.39	42.64	40.40	39.83	47.74	45.44	44.20	44.02	44.93
21	45.77	45.57	45.18	44.12	42.41	40.27	40.12	47.76	45.66	44.02	44.08	45.05
22	45.75	45.53	45.24	43.90	42.17	40.07	40.35	47.85	45.86	44.01	44.10	45.09
23	45.68	45.55	45.22	43.79	41.96	39.89	40.62	47.91	46.06	44.14	44.06	45.14
24	45.57	45.51	45.13	43.81	41.79	39.75	41.01	47.80	46.24	44.29	44.02	45.17
25	45.53	45.58	45.06	43.80	41.68	39.63	41.56	47.61	46.47	44.33	43.88	45.10
26	45.58	45.63	45.03	43.80	41.64	39.56	42.07	47.40	46.61	44.25	43.81	45.07
27	45.61	45.61	45.01	43.78	41.67	39.44	42.60	47.32	46.69	44.14	43.75	45.11
28	45.64	45.59	45.01	43.80	41.66	39.32	43.21	47.18	46.58	43.99	43.73	45.15
29	45.63	45.59	45.05	43.93	41.72	39.20	44.04	47.00	46.37	43.95	43.70	45.16
30	45.63	45.58	45.06	44.03	---	39.08	44.83	46.84	46.08	43.99	43.73	45.28
31	45.72	---	45.07	44.05	---	38.97	---	46.69	---	44.04	43.74	---
MEAN	45.36	45.63	45.21	44.52	42.75	40.64	40.01	47.64	45.81	44.33	43.87	44.61
MAX	45.77	45.83	45.73	45.09	44.05	41.76	44.83	48.84	46.69	45.80	44.10	45.28
MIN	44.80	45.51	44.94	43.78	41.64	38.97	38.64	45.38	45.18	43.95	43.70	43.72

WTR YR 1980 MEAN 44.21 MAX 48.84 MIN 38.64

NOTE.--Add 1,700 ft to obtain elevations.

12392000 CLARK FORK AT WHITEHORSE RAPIDS, NEAR CABINET, ID

LOCATION.--Lat 48°05'18", long 116°04'16", in SW¼NW¼ sec.27, T.55 N., R.3 E., Bonner County, Hydrologic Unit 17010213, on right bank 0.8 mi (1.3 km) downstream from Cabinet Gorge Dam at cableway, 2.1 mi (3.4 km) downstream from Blue Creek, 6.1 mi (9.8 km) southeast of Clark Fork, and at mile 149.1 (239.9 km). Discharge computed at Whitehorse Rapids, 2.3 mi (3.7 km) downstream.

DRAINAGE AREA.--22,073 mi² (57,169 km²), based on revised area of 22,067 mi² (57,154 km²) for site 0.4 mi (0.6 km) upstream.

PERIOD OF RECORD.--September 1928 to current year. Prior to October 1952, published as "near Heron, Mont."

REVISED RECORDS.--WSP 1182: 1936. WSP 1736: 1931, 1936(m), 1937.

GAGE.--Water-stage recorder. Datum of gage is 2,060.00 ft (627.888 m) National Geodetic Vertical Datum of 1929, levels by Washington Water Power Co. See WSP 1934 for history of changes made prior to Sept. 30, 1952. Water-stage recorder at site 0.4 mi (0.6 km) upstream at datum 60.00 ft (18.288 m) lower Oct. 1, 1952, to Sept. 30, 1964, and at present datum Oct. 1, 1964, to May 21, 1973.

REMARKS.--Records fair except those for period February to July, which are poor. Flow regulated by Hungry Horse Reservoir and Flathead Lake. Extreme diurnal fluctuation caused by powerplant at Cabinet Gorge Dam. Diversions above station for irrigation of about 354,000 acres (143,000 hm²). Discharge measurements indicate about 800 ft³/s (22.7 m³/s) ground-water inflow between Cabinet Gorge Dam and Whitehorse Rapids. Records given herein represent flow at Whitehorse Rapids, computed by adding 600 ft³/s (17.0 m³/s) to observed flows at the measuring cableway, and are considered comparable to records at former site near Heron, except for minor surface inflow from additional drainage area. To determine flow at Cabinet Gorge Dam, 800 ft³/s (22.7 m³/s) should be deducted from discharges published herein.

AVERAGE DISCHARGE.--52 years, 22,340 ft³/s (632.7 m³/s), 16,190,000 acre-ft/yr (20.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 153,000 ft³/s (4,333 m³/s) May 29 to June 1, 1948; maximum gage height, 50.97 ft (15.536 m) May 31, 1948, site and datum then in use; minimum observed, 270 ft³/s (7.65 m³/s) Aug. 12, 1952 (discharge measurement), at sites in use since October 1952, during filling of Cabinet Gorge reservoir; minimum daily since reservoir filled, 762 ft³/s (21.6 m³/s) Sept. 2, 1962.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in June 1894 reached a discharge of 195,000 ft³/s (5,520 m³/s) from floodmark (elevation of 2,137.1 ft (651.388 m) at site about 4 mi (6.4 km) upstream and 0.1 mi (0.2 km) below "near Heron" site.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 97,100 ft³/s (2,750 m³/s) May 28, minimum daily, 3,600 ft³/s (102 m³/s) Feb. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12800	14500	8690	11300	17000	8900	11400	36100	63000	32500	8650	3880
2	8900	16500	10100	13100	10000	10800	11400	35400	65300	30600	11100	12400
3	8730	10700	18800	11500	7500	13400	10900	31600	62100	31300	11200	5130
4	7880	13100	12000	17800	11700	11400	10800	38100	64000	29200	11500	5320
5	8700	17300	13000	13000	13600	11000	10900	45800	69600	31700	8580	10900
6	10800	15700	10500	10200	11700	9600	10800	46300	68900	31400	10300	11600
7	5170	22000	19600	15900	15000	9800	14000	45500	67900	31100	9260	8840
8	7810	18700	12600	14100	10800	7900	12800	46600	65400	29900	7920	13700
9	6480	20300	16200	5800	12500	8900	12900	47200	56900	29600	9650	18600
10	10400	13700	17500	4200	5800	12200	7400	48000	51600	27200	9570	14400
11	9490	9440	13400	8900	8500	13200	10500	53600	45700	25700	10800	15900
12	5400	17400	18200	12100	15200	13500	7600	53300	47200	26900	11600	15700
13	6040	23400	15600	7300	19800	10500	5100	48900	54200	26300	12500	16200
14	8850	15700	12300	11500	18200	11700	9700	40200	66400	23300	4820	16000
15	9330	11900	19600	14500	8600	9300	9300	36600	71500	25800	6030	14900
16	13300	15400	13800	15900	5300	8800	11000	39600	72800	24800	8820	11800
17	14700	15000	14600	14000	3600	13600	11700	36800	69000	28400	8460	15200
18	19700	24900	16400	11100	4300	12200	12300	38500	62700	21600	7920	9990
19	9860	15000	15600	11400	3700	8400	14100	37300	62600	21000	8810	9770
20	12400	14500	14400	10300	3800	10200	20400	38000	58900	19800	12200	7220
21	14500	18500	13900	13600	5900	11700	21400	41200	56800	17700	8400	7440
22	15100	21800	14500	7800	13100	10600	27100	41400	51300	18900	17400	6600
23	14000	18500	16900	9200	13600	9400	17700	45600	50200	14500	15400	6110
24	16000	9170	9540	12300	11500	11800	16200	48300	44300	18000	15700	8450
25	16900	13700	11300	12300	13400	9100	20600	55900	38600	14700	13200	11100
26	20200	16000	14500	11500	11100	13400	18000	74300	38400	15100	15300	14800
27	19500	19200	11800	7900	10700	10100	21200	96900	36300	14600	15800	15400
28	13300	24900	14600	16100	11200	8700	26600	97100	36300	16300	16100	10900
29	14600	23300	12900	13400	12300	8800	31100	92900	36300	10300	16300	12800
30	20100	18400	8410	15100	---	8600	35200	73400	36300	12600	4020	13500
31	20600	---	15000	14200	---	9500	---	58500	---	14100	3960	---
TOTAL	381540	509110	436240	367300	309400	327000	460100	1568900	1670500	714900	331270	344550
MEAN	12310	16970	14070	11850	10670	10550	15340	50610	55680	23060	10690	11490
MAX	20600	24900	19600	17800	19800	13600	35200	97100	72800	32500	17400	18600
MIN	5170	9170	8410	4200	3600	7900	5100	31600	36300	10300	3960	3880
AC-FT	756800	1010000	865300	728500	613700	648600	912600	3112000	3313000	1418000	657100	683400

CAL YR 1979 TOTAL 7452850 MEAN 20420 MAX 79500 MIN 3780 AC-FT 14780000
WTR YR 1980 TOTAL 7420810 MEAN 20280 MAX 97100 MIN 3600 AC-FT 14720000

NOTE.--No gage-height record Feb. 8 to July 18.

12392300 PACK RIVER NEAR COLBURN, ID

LOCATION.--Lat 48°25'12", long 116°30'02", in NW¼SW¼ sec.32, T.59 N., R.1 W., Bonner County, Hydrologic Unit 17010214, on right bank 50 ft (15.2 m) downstream from bridge on U.S. Highway 95, 2.2 mi (3.5 km) northeast of Colburn, 10 mi (16.1 km) north of Sandpoint, and at mile 28.07 (45.2 km).

DRAINAGE AREA.--124 mi² (321 km²). Mean altitude, 4,210 ft (1,283 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1958 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,130 ft (649 m), from topographic map.

REMARKS.--Records good except those for Apr. 15 to May 28, which are fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--22 years, 319 ft³/s (9.03 m³/s), 34.94 in/yr (887 mm/yr), 231,100 acre-ft/yr (285 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,880 ft³/s (194 m³/s) Jan. 16, 1974, gage height, 16.38 ft (4.993 m); minimum, 15 ft³/s (0.425 m³/s) Sept. 2, 3, 1967; minimum gage height, 0.69 ft (0.210 m) Sept. 14, 15, 1973.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,450 ft³/s (41 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 29	1245	*3310	93.7	12.18	3.712

Minimum discharge, 18 ft³/s (0.510 m³/s) Oct. 10, 11; minimum gage height, 0.85 ft (0.259 m) Oct. 10-13, 15-16.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1 to Dec. 12, Sept. 2-30; stage-discharge relation affected by ice Nov. 27 to Dec. 3, Dec. 12-15, Jan. 5-14, 28-31, Feb. 14-17)

0.6	15.0	4.0	436
.8	24.2	6.0	896
1.0	36.0	8.0	1510
1.5	74.0	9.0	1860
2.0	125	11.0	2650
3.0	256	13.0	3850

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	47	21	105	144	375	185	1790	629	150	44	62
2	19	46	22	105	154	335	185	1960	550	135	43	249
3	19	45	26	105	186	309	160	1710	412	125	45	238
4	19	42	42	92	196	260	175	1650	350	117	42	144
5	19	43	46	80	170	263	200	1580	325	113	42	111
6	19	42	40	77	164	243	225	1780	323	104	41	96
7	19	40	37	74	160	234	200	1540	310	99	41	83
8	19	40	35	73	154	219	205	1230	325	94	39	80
9	19	37	40	73	146	211	215	1150	358	90	38	73
10	18	37	73	74	134	205	240	1120	338	98	37	68
11	18	36	50	80	115	228	220	1040	312	115	36	64
12	19	35	44	95	88	212	210	935	298	97	35	60
13	19	32	43	125	75	209	275	857	325	89	34	59
14	19	30	52	180	71	205	410	766	291	84	33	80
15	19	31	47	200	71	194	524	760	275	94	32	69
16	19	35	68	185	85	182	538	750	256	87	31	63
17	21	42	84	179	90	181	625	730	234	84	31	60
18	26	42	423	164	109	180	813	690	206	80	116	57
19	27	36	324	142	143	181	960	670	187	77	86	65
20	29	33	311	137	121	180	1100	690	177	75	62	194
21	26	35	243	133	111	181	1110	730	164	71	52	188
22	26	29	204	132	105	189	1170	790	156	67	48	148
23	56	37	179	133	100	204	1430	680	148	64	44	124
24	75	35	166	132	100	194	1840	550	166	61	41	109
25	122	33	151	124	93	190	1670	520	144	58	39	98
26	89	28	139	114	97	175	1590	629	141	55	37	90
27	123	25	129	114	369	180	2000	550	220	52	35	84
28	60	23	123	110	559	170	2400	480	219	51	49	80
29	64	21	118	110	448	180	3100	462	195	48	49	75
30	56	21	113	115	---	185	1930	474	170	46	44	70
31	51	---	111	120	---	185	---	498	---	46	44	---
TOTAL	1173	1058	3509	3682	4558	6659	25925	29775	8204	2626	1390	3041
MEAN	37.8	35.3	113	119	157	215	864	960	273	84.7	44.8	101
MAX	123	47	423	200	559	375	3100	1960	629	150	116	249
MIN	18	21	21	73	71	170	175	462	141	46	31	57
CFSM	.31	.29	.91	.96	1.27	1.73	6.97	7.74	2.20	.68	.36	.82
IN.	.35	.32	1.05	1.10	1.37	2.00	7.78	8.93	2.46	.79	.42	.91
AC-FT	2330	2100	6960	7300	9040	13210	51420	59060	16270	5210	2760	6030

CAL YR 1979 TOTAL 77231 MEAN 212 MAX 2630 MIN 18 CFSM 1.71 IN 23.17 AC-FT 153200
WTR YR 1980 TOTAL 91600 MEAN 250 MAX 3100 MIN 18 CFSM 2.02 IN 27.48 AC-FT 181700

12392300 PACK RIVER NEAR COLBURN, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.
REMARKS.--May 23 samples taken after Mt. St. Helens May 18, 1980, eruption and ashfall.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT
NOV 05...	1330	44	45	6.7	6.5	6.5	17	3	5.6	.7	1.8	18
MAY 23...	0930	816	17	7.1	8.5	7.0	6	2	1.5	<.0	.7	20
JUL 03...	1115	124	28	6.7	20.5	16.0	10	0	3.6	.3	1.3	21

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
NOV 05...	.2	.6	14	--	5.0	.6	.1	11	--	34	.05	5.00
MAY 23...	.1	.3	3	.6	1.3	.5	.0	6.0	16	4	.02	35.3
JUL 03...	.2	.5	13	--	1.0	.2	.1	9.6	--	24	.03	8.04

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)
NOV 05...	--	.02	--	--	--	--	--	--
MAY 23...	.03	.02	.010	.010	.01	.01	.32	.30
JUL 03...	--	.00	--	--	--	--	--	--

DATE	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS PO4)
NOV 05...	--	--	--	--	--	.010	--	.03
MAY 23...	.33	.02	.31	.36	1.6	.020	.010	.06
JUL 03...	--	--	--	--	--	.010	--	.03

SUSPENDED-SEDIMENT DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
MAY 23...	816	54	119

12392300 PACK RIVER NEAR COLBURN, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, SUSPENDED RECOV. (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, TOTAL (UG/L AS SB)	ANTIMONY, SUSPENDED TOTAL (UG/L AS SB)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA)
MAY 23...	320	240	<100	0	0	0	1	1	0	<100	0

DATE	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	BORON, SUSPENDED RECOVERABLE (UG/L AS B)	BORON, DISSOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)
MAY 23...	*3	<1	<100	10	<100	0	*<1	0	0	0	<5

DATE	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	LITHIUM DISSOLVED (UG/L AS LI)
MAY 23...	*<5	<10	*<10	650	620	30	6	1	*<10	<10	*<10

DATE	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)
MAY 23...	<50	10	*6	<1.0	.1	.0	<10	5	1	<10	0

DATE	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
MAY 23...	0	0	0	0	0	10	<6.0	<50	10	*6

* The inductively coupled plasma atomic-emission spectroscopy analytical method was used.

12392500 PEND OREILLE LAKE NEAR HOPE, ID

LOCATION.--Lat 48°16'35", long 116°20'47", in NW¼SE¼NW¼ sec.21, T.57 N., R.1 E., Bonner County, Hydrologic Unit 17010214, 0.5 mi (0.8 km) southeast of Trestle Creek and 2.5 mi (4.0 km) northwest of Hope.

DRAINAGE AREA.--22,900 mi² (59,310 km²), approximately (natural drainage area above mouth of lake at Sandpoint).

PERIOD OF RECORD.--March 1914 to current year. Published as "at Sandpoint" 1914-22. Records published for both sites September 1921 to September 1922. Published as "at Hope" September 1921 to December 1974.

REVISED RECORDS.--WSP 1122: 1946.

GAGE.--Water-stage recorder. Datum of gage is 2,000.00 ft (609.600 m) National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations of that datum. Prior to Oct. 1, 1921, nonrecording gage at Sandpoint at datum 42.18 ft (13.856 m) higher. Oct. 1, 1921, to Sept. 30, 1929, nonrecording gage "at Hope" site at datum 45.47 ft (13.859 m) higher than present datum. Oct. 1, 1929, to Sept. 30, 1950, water-stage recorder "at Hope" site at datum 0.20 ft (0.061 m) lower than present datum. Oct. 1, 1950, to Dec. 23, 1974, water-stage recorder "at Hope" site and present datum.

REMARKS.--Records good. Midnight readings are published. Regulation at Albeni Falls Dam beginning June 4, 1952. Contents shown is that above elevation 2,044.8 ft (623.26 m) but does not include storage in Pend Oreille River above Albeni Falls Dam.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 2,071.62 ft (631.430 m), present datum, June 9, 1948, contents, 2,462,000 acre-ft (3,036 hm³); minimum, 2,046.27 ft (623.703 m), present datum, Feb. 17, 1936, contents, 117,700 acre-ft (145 hm³).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation known, 2,075.88 ft (632.728 m), present datum, June 1894, contents, 2,905,000 acre-ft (3,582 hm³).

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 2,062.68 ft (628.705 m) May 30, contents, 1,578,000 acre-ft (1,946 hm³); minimum, 2,050.97 ft (625.136 m) Mar. 29, contents 516,000 acre-ft (636 hm³).

Capacity table (elevation, in feet, and contents, in acre-feet)

2,050	432,000
2,055	871,600
2,060	1,327,000
2,066	1,898,000

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59.50	54.72	51.27	51.40	51.54	51.45	51.16	55.02	62.19	62.47	62.35	62.25
2	59.32	54.85	51.20	51.47	51.49	51.42	51.19	55.39	62.26	62.47	62.35	62.35
3	59.12	54.61	51.28	51.44	51.37	51.46	51.26	55.64	62.25	62.47	62.38	62.17
4	58.88	54.38	51.27	51.57	51.34	51.47	51.32	56.01	62.29	62.47	62.37	61.98
5	58.67	54.23	51.24	51.57	51.38	51.48	51.31	56.58	62.39	62.48	62.30	61.92
6	58.40	54.05	51.13	51.47	51.39	51.40	51.47	57.11	62.42	62.49	62.29	61.82
7	58.05	53.90	51.32	51.45	51.42	51.38	51.53	57.41	62.38	62.49	62.26	61.74
8	57.73	53.76	51.33	51.40	51.39	51.37	51.53	57.69	62.32	62.50	62.22	61.68
9	57.42	53.68	51.50	51.26	51.40	51.37	51.53	58.00	62.13	62.44	62.23	61.75
10	57.29	53.45	51.53	51.12	51.26	51.45	51.42	58.25	61.95	62.46	62.22	61.75
11	57.20	53.16	51.42	51.17	51.17	51.51	51.38	58.59	61.88	62.41	62.28	61.75
12	57.02	52.94	51.47	51.35	51.27	51.49	51.40	58.97	62.02	62.40	62.31	61.71
13	56.84	52.77	51.53	51.34	51.43	51.39	51.40	59.36	62.13	62.42	62.44	61.78
14	56.75	52.56	51.40	51.34	51.59	51.40	51.45	59.55	62.36	62.37	62.33	61.77
15	56.66	52.27	51.46	51.38	51.42	51.43	51.45	59.73	62.45	62.38	62.27	61.74
16	56.61	52.11	51.45	51.45	51.16	51.44	51.51	59.90	62.46	62.40	62.25	61.57
17	56.63	51.84	51.46	51.46	51.09	51.63	51.59	60.04	62.30	62.47	62.34	61.42
18	56.61	51.76	51.50	51.39	51.03	51.70	51.69	60.22	62.24	62.40	62.32	61.22
19	56.41	51.58	51.56	51.36	51.07	51.72	51.81	60.34	62.31	62.35	62.35	61.02
20	56.20	51.37	51.50	51.28	51.15	51.76	52.14	60.49	62.35	62.28	62.47	60.74
21	56.03	51.28	51.42	51.29	51.16	51.80	52.46	60.69	62.33	62.23	62.40	60.50
22	55.92	51.46	51.36	51.23	51.26	51.70	52.84	60.93	62.25	62.31	62.45	60.31
23	55.76	51.57	51.38	51.15	51.34	51.78	53.00	61.17	62.20	62.29	62.46	60.21
24	55.58	51.34	51.27	51.20	51.40	51.70	53.04	61.36	62.20	62.28	62.45	60.19
25	55.48	51.36	51.23	51.20	51.45	51.55	53.21	61.62	62.28	62.25	62.35	60.22
26	55.41	51.39	51.27	51.25	51.45	51.51	53.27	61.98	62.41	62.30	62.37	60.25
27	55.31	51.44	51.27	51.18	51.46	51.39	53.47	62.30	62.45	62.32	62.47	60.27
28	55.09	51.46	51.33	51.30	51.43	51.20	53.82	62.60	62.45	62.39	62.49	60.28
29	54.88	51.48	51.38	51.33	51.50	51.15	54.25	62.67	62.45	62.39	62.55	60.27
30	54.82	51.38	51.31	51.35	---	51.21	54.64	62.49	62.47	62.34	62.44	60.14
31	54.79	---	51.38	51.43	---	51.17	---	62.24	---	62.40	62.32	---
MEAN	56.79	52.61	51.37	51.34	51.34	51.48	52.12	59.49	62.29	62.39	62.36	61.23
MAX	59.50	54.85	51.56	51.57	51.59	51.80	54.64	62.67	62.47	62.50	62.55	62.35
MIN	54.79	51.28	51.13	51.12	51.03	51.15	51.16	55.02	61.88	62.23	62.22	60.14
(†)	852900	551700	551700	556000	562100	533400	839500	1537000	1553000	1552000	1544000	1340000
(‡)	-439100	-301200	0	+4300	+6100	-28700	+306100	+697500	+21000	-6000	-8000	-204000

CAL YR 1979............ ‡ -8700
WTR YR 1980............ ‡ +48000

† Contents, in acre-feet, at end of month.
‡ Change in contents, in acre-feet, at end of month.

12392895 BLANCHARD CREEK ABOVE RESERVOIR NEAR BLANCHARD, ID

LOCATION.--Lat 47°59'58", long 117°01'51", in NE¼NW¼SE¼, sec.25, T.54 N., R.5 W., Bonner County, Hydrologic Unit 17010214, on left bank 5.0 ft (1.52 m) upstream from private drive bridge just off Blanchard Loop Road, 0.6 mi (0.97 km) downstream from Idaho-Washington State line, 2.5 mi (4.02 km) downstream from North Fork, 2.5 mi (4.02 km) west of Blanchard Lake, and 2.5 mi (4.02 km) southwest of Blanchard.

DRAINAGE AREA.--31.46 mi² (81.48 km²).

PERIOD OF RECORD.--October 1979 to September 1980. Miscellaneous measurements made at different sites and datums since 1958.

GAGE.--Nonrecording gage, staff and crest-stage gages. Altitude of gage is 2,300 ft (701 m), from topographic map.

REMARKS.--Records fair.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 154 ft³/s (4.36 m³/s) May 16, gage height, 5.05 ft (1.539 m); minimum observed, 1.2 ft³/s (0.034 m³/s) Aug. 16; minimum observed gage height, 1.83 ft (0.558 m) Oct. 8.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 8-14, Nov. 29 to Dec. 4,
Jan. 6-16, Jan. 27 to Feb. 19, Mar. 3-6)

Oct. 1 to Apr. 16				Apr. 17 to Sept. 30			
1.82	1.2	2.5	15	1.86	1.2	2.8	18
1.90	2.2	3.0	26	1.95	2.2	3.2	31
2.00	4.5	4.0	53	2.1	4.5	3.8	59
2.20	8.6			2.4	9.4	4.4	99

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	3.4	1.8	6.3	4.9	39	19	48	41	11	2.5	4.2
2	1.7	3.4	2.0	5.8	5.0	33	19	47	39	10	2.2	5.1
3	1.7	3.4	2.7	5.8	5.1	31	19	45	38	10	2.2	3.9
4	1.7	3.4	4.1	4.9	5.2	29	19	44	37	10	2.5	3.9
5	1.7	3.4	6.0	3.9	5.3	27	22	44	35	9.4	2.5	3.6
6	1.7	3.4	5.8	3.8	5.4	26	26	51	31	9.0	2.5	3.3
7	1.6	3.4	4.9	3.8	5.2	25	22	48	29	8.7	2.6	3.9
8	1.4	3.3	4.9	3.9	5.1	22	23	47	27	8.7	2.3	3.6
9	1.6	3.3	5.8	4.1	5.0	23	39	53	25	8.8	2.3	3.6
10	1.6	3.2	9.9	4.6	4.9	22	28	48	25	15	1.8	3.3
11	1.4	3.2	6.3	5.3	4.9	34	28	42	22	10	2.0	3.0
12	1.4	3.2	4.9	6.5	4.9	25	27	39	25	9.2	2.3	2.3
13	1.6	3.1	5.4	8.8	4.8	25	28	34	28	8.8	2.3	5.3
14	1.6	3.1	7.3	16	4.8	27	30	34	22	8.5	2.3	6.4
15	1.6	3.0	20	26	4.7	23	36	39	21	8.5	1.8	4.2
16	1.6	3.0	15	21	4.7	23	35	97	21	8.5	1.2	3.4
17	1.9	3.9	7.5	19	4.7	24	35	75	19	8.5	2.6	3.1
18	3.2	4.9	35	17	8.0	22	33	63	18	7.3	7.2	3.1
19	6.0	4.5	14	16	15	20	34	54	16	6.7	3.6	3.4
20	6.3	3.4	21	14	35	19	33	48	15	6.7	3.4	5.6
21	3.9	1.9	14	13	37	19	33	45	15	6.7	3.4	4.3
22	3.9	2.2	12	13	36	19	33	49	15	6.0	3.1	4.0
23	9.2	2.6	9.9	12	31	19	33	40	15	5.4	2.8	3.7
24	4.2	3.0	8.6	11	20	19	33	38	15	5.1	2.8	3.7
25	6.3	2.2	7.9	9.5	14	19	32	41	14	4.8	2.8	3.1
26	5.4	1.9	7.1	6.6	15	19	31	58	18	4.5	3.1	3.1
27	6.3	2.2	6.7	6.2	38	18	31	47	15	4.3	4.3	3.3
28	6.3	1.9	6.3	5.3	38	25	31	41	13	4.0	2.8	3.3
29	4.5	1.7	5.8	5.0	44	23	47	42	12	3.7	2.2	3.3
30	3.9	1.6	5.8	4.9	---	22	48	45	11	3.4	2.2	3.3
31	3.4	---	5.8	4.8	---	20	---	41	---	2.8	2.2	---
TOTAL	100.4	90.1	274.2	289.8	415.6	741	907	1487	677	234.0	83.8	113.3
MEAN	3.24	3.00	8.85	9.35	14.3	23.9	30.2	48.0	22.6	7.55	2.70	3.78
MAX	9.2	4.9	35	26	44	39	48	97	41	15	7.2	6.4
MIN	1.4	1.6	1.8	3.8	4.7	18	19	34	11	2.8	1.2	2.3
AC-FT	199	179	544	575	824	1470	1800	2950	1340	464	166	225

WTR YR 1980 TOTAL 5413.2 MEAN 14.8 MAX 97 MIN 1.2 AC-FT 10740

12393000 PRIEST LAKE AT OUTLET, NEAR COOLIN, ID

LOCATION.--Lat 48°29'36", long 116°52'58", in NE¼NE¼SW¼ sec.5, T.59 N., R.4 W., Bonner County, Hydrologic Unit 17010215, 0.5 mi (0.8 km) east of outlet, 1.8 mi (2.9 km) northwest of Coolin, and 44 mi (70.8 km) upstream from mouth of Priest River.

DRAINAGE AREA.--572 mi² (1,480 km²).

PERIOD OF RECORD.--June 1911 to September 1913 (fragmentary gage-height records at Coolin, published as part of records for Priest River at outlet of Priest Lake, at Coolin), April 1928 to July 1950 (gage-height record only), August 1950 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,434.64 ft (742.078 m) National Geodetic Vertical Datum of 1929. June 18, 1911, to Sept. 30, 1913, nonrecording gages at Coolin at different datums. Apr. 21, 1928, to Oct. 18, 1939, nonrecording gage at site 400 ft (122 m) north of lake outlet at present datum.

REMARKS.--Flow from Priest Lake is regulated to hold lake at heights desirable for recreation interests during summer months and storage is released for power use downstream during winter months. Storage began Aug. 9, 1950. Prior to Aug. 9, 1950, some regulation resulted from logging operations in the outlet channel. Figures given herein represent contents above gage height of about -2 ft (-0.61 m). Capacity table is based on area measured from Priest Lake quadrangle (scale 1:250,000) and reconnaissance survey of marginal areas and is only approximate. New dam completed Nov. 27, 1978.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 6.68 ft (2.036 m) June 20, 1974, contents, 207,500 acre-ft (256 hm³); minimum, -0.46 ft (-0.140 m) Jan. 5, 6, 1977, contents, 37,500 acre-ft (46.53 hm³).

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 4.71 ft (1.436 m) May 9, contents, 160,100 acre-ft (197 hm³); minimum, 0.04 rt (0.012 m) Jan. 30, contents, 49,200 acre-ft (60.7 hm³).

Capacity table (gage height, in feet, and contents, in acre-feet)

0.0	48,000
3.0	119,270
4.0	143,100
5.0	167,050

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.96	.52	.14	.26	.10	.42	.36	4.19	3.23	3.09	2.98	3.10
2	2.96	.47	.22	.26	.16	.42	.37	4.37	3.26	3.07	2.99	3.18
3	2.93	.43	.23	.24	.22	.48	.37	4.45	3.25	3.02	3.00	3.17
4	2.92	.40	.21	.22	.20	.52	.36	4.50	3.20	3.01	2.97	3.14
5	2.93	.35	.21	.20	.18	.54	.36	4.56	3.16	3.02	3.00	3.11
6	2.91	.31	.18	.18	.22	.48	.36	4.65	3.10	3.03	2.99	3.07
7	2.86	.27	.20	.24	.26	.50	.36	4.69	3.05	3.05	2.99	3.04
8	2.77	.22	.17	.28	.22	.50	.36	4.69	3.02	3.06	3.00	3.02
9	2.65	.18	.16	.20	.22	.48	.37	4.69	3.02	3.09	3.01	2.99
10	2.51	.17	.17	.16	.20	.50	.37	4.65	3.06	3.13	3.01	2.99
11	2.36	.17	.16	.16	.20	.50	.38	4.57	3.07	3.14	3.06	2.96
12	2.20	.17	.16	.18	.16	.52	.39	4.47	3.09	3.14	3.06	2.96
13	2.03	.17	.19	.18	.14	.48	.40	4.33	3.10	3.12	3.06	3.00
14	1.87	.16	.21	.20	.16	.54	.44	4.16	3.08	3.12	3.06	2.95
15	1.72	.15	.23	.24	.18	.54	.50	4.04	3.07	3.11	3.04	2.93
16	1.60	.17	.20	.24	.16	.52	.64	3.94	3.06	3.12	3.04	2.94
17	1.47	.17	.29	.26	.12	.49	.73	3.86	3.04	3.10	3.09	2.95
18	1.37	.15	.32	.28	.18	.52	.85	3.75	3.03	3.09	3.18	2.99
19	1.27	.14	.38	.24	.22	.52	1.00	3.69	3.03	3.06	3.16	3.01
20	1.18	.12	.38	.22	.24	.46	1.15	3.64	3.01	3.04	3.12	3.08
21	1.08	.11	.38	.16	.24	.48	1.34	3.56	3.00	3.04	3.09	3.06
22	1.02	.12	.38	.18	.22	.44	1.54	3.60	2.96	3.04	3.06	3.08
23	.97	.13	.40	.16	.22	.42	1.78	3.54	3.03	3.05	3.01	3.07
24	.92	.13	.44	.14	.20	.42	2.14	3.46	3.05	3.06	2.97	3.05
25	.85	.12	.38	.18	.22	.40	2.44	3.40	3.05	3.06	2.94	3.05
26	.80	.11	.38	.10	.22	.40	2.69	3.33	3.12	3.06	2.94	3.04
27	.77	.11	.36	.10	.26	.38	2.96	3.31	3.14	3.06	2.98	3.04
28	.73	.11	.34	.10	.28	.38	3.32	3.26	3.15	3.06	2.99	3.03
29	.67	.11	.34	.10	.38	.34	3.78	3.24	3.12	3.03	2.99	3.01
30	.63	.11	.30	.08	---	.36	4.03	3.22	3.11	3.02	2.99	3.01
31	.58	---	.34	.06	---	.38	---	3.20	---	3.02	3.05	---
MAX	2.96	.52	.44	.28	.38	.54	4.03	4.69	3.26	3.14	3.18	3.18
MIN	.58	.11	.14	.06	.10	.34	.36	3.20	2.96	3.01	2.94	2.93
(†)	62000	50900	56300	49700	57200	57200	143800	124000	121900	119700	120500	119500
(‡)	-56600	-11100	+5400	-6600	+7500	0	+86600	-19800	-2100	-2100	+800	-1000

CAL YR 1979............ ‡ +15500
WTR YR 1980............ ‡ +900

† Contents, in acre-feet, at end of month.
† Change in contents, in acre-feet, at end of month.

12394000 PRIEST RIVER NEAR COOLIN, ID

LOCATION.--Lat 48°27'07", long 116°53'58", in SE¼SW¼NE¼ sec.19, T.59 N., R.4 W., Bonner County, Hydrologic Unit 17010215, in Dickensheet campground, on left bank 190 ft (57.9 m) downstream from Dickensheet Bridge, 2.5 mi (4 km) downstream from Binarch Creek, 3 mi (4.8 km) southwest of Coolin, 5.2 mi (8.4 km) downstream from outlet of Priest Lake, and at mile 38.8 (62.4 km).

DRAINAGE AREA.--611 mi² (1,582 km²).

PERIOD OF RECORD.--October 1948 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,338.24 ft (712.70 m) National Geodetic Vertical Datum of 1929. Prior to Feb. 23, 1949, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter period, which are fair. No diversion above station. Flow partly regulated by Priest Lake (see sta 12393000).

AVERAGE DISCHARGE.--32 years, 1,292 ft³/s (36.6 m³/s), 28.72 in/yr (729 mm/yr), 936,100 acre-ft/yr (1,150 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,900 ft³/s (252 m³/s) June 18, 1974, gage height, 8.44 ft (2.573 m); minimum observed, 26 ft³/s (0.736 m³/s) Sept. 25, 1958, gage height, 1.16 ft (0.354 m), but may have been less Sept. 11, 1953, Sept. 24, 1958, when stage was below intake.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 29, 1948, reached a stage of 8.40 ft (2.560 m) present site and datum, discharge, 8,670 ft³/s (246 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,150 ft³/s (174 m³/s) May 8, gage height, 7.13 ft (2.173 m); minimum, 61 ft³/s (1.73 m³/s) Oct. 5, 6, gage height, 1.48 ft (0.451 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

1.4	51	3.5	930
1.6	76	4.0	1,400
2.0	152	5.0	2,690
2.5	315	6.0	4,190
3.0	570	8.0	7,930

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	901	115	600	210	774	824	5230	2600	1130	307	245
2	62	858	134	600	220	806	811	5460	2700	1040	309	601
3	62	824	216	610	270	847	803	5060	2740	1020	308	844
4	62	790	258	580	350	860	799	5760	2720	882	308	955
5	62	759	318	550	390	868	805	5620	2700	730	246	957
6	194	723	351	500	390	887	826	5920	2670	634	209	943
7	662	691	358	360	400	887	831	6010	2490	472	207	940
8	1060	659	387	320	450	882	831	6060	2110	397	191	718
9	1470	627	299	300	440	880	849	6050	1540	397	141	577
10	1840	415	329	290	430	881	871	6020	1410	397	140	479
11	2100	103	329	295	420	898	871	5900	1450	608	140	414
12	2230	160	325	310	400	899	879	5730	1570	737	140	411
13	2280	171	326	340	332	904	894	5560	1730	737	139	459
14	2290	208	330	365	398	910	918	5400	1800	759	170	796
15	2180	208	362	395	445	904	980	5200	1710	827	215	467
16	2010	226	387	420	297	893	1050	5020	1570	850	212	172
17	1880	315	419	440	258	894	1120	4870	1510	850	214	98
18	1740	435	552	420	252	894	1220	4730	1370	850	284	93
19	1650	405	687	390	303	885	1350	4610	1310	850	701	160
20	1540	360	786	350	383	874	1520	4360	1220	850	793	320
21	1430	317	810	310	425	860	1690	4060	1180	614	796	479
22	1330	216	818	300	425	850	1870	4090	1180	387	795	558
23	1300	147	790	305	421	845	2100	4060	931	320	795	561
24	1250	157	770	315	421	840	2430	3940	804	320	729	563
25	1200	175	730	325	421	829	2830	3830	965	320	398	459
26	1130	161	700	320	423	821	3180	3520	1050	316	260	388
27	1110	131	670	310	493	815	3510	3110	1120	316	115	387
28	1080	118	650	295	574	809	3830	2990	1240	316	159	383
29	1030	110	630	260	686	825	4420	2710	1360	311	218	383
30	988	114	620	210	---	844	4940	2580	1250	307	218	383
31	945	---	610	200	---	834	---	2580	---	307	219	---
TOTAL	38230	11484	15066	11585	11327	26739	49902	146860	50040	18851	10076	15193
MEAN	1233	383	486	374	391	863	1663	4737	1668	608	325	506
MAX	2290	901	818	610	686	910	4940	6080	2740	1130	796	957
MIN	62	103	115	200	210	774	799	2580	804	307	115	93
AC-FT	75830	22780	29880	22980	22470	53040	98980	291300	99250	37390	19990	30140

CAL YR 1979 TOTAL 294351 MEAN 806 MAX 4200 MIN 56 AC-FT 583800
WTR YR 1980 TOTAL 405353 MEAN 1108 MAX 6080 MIN 62 AC-FT 804000

12395000 PRIEST RIVER NEAR PRIEST RIVER, ID

LOCATION .--Lat 48°12'31", long 116°54'49", in NW¼SW¼NW¼ sec.12, T.56 N., R.5 W., Bonner County, Hydrologic Unit 17010215, on right bank 500 ft (152 m) downstream from Saddler Creek, 0.4 mi (0.6 km) downstream from Lower West Branch, 2.7 mi (4.3 km) north of Priest River, and at mile 3.8 (6.1 km).

DRAINAGE AREA.--902 mi² (2,336 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1903 to April 1905, November 1910 to April 1911, May to December 1923, February 1929 to current year. Prior to October 1930, published as "at Priest River."

REVISED RECORDS.--WSP 572: 1903-5.

GAGE.--Water-stage recorder. Altitude of gage is 2,090 ft (637 m), from river-profile map. Prior to May 15, 1929, and Sept. 18, 1929, to Apr. 28, 1930, nonrecording gages at site 3 mi (4.8 km) downstream at altitude about 40 ft (12 m) lower. June 4 to Sept. 17, 1929, and Apr. 29 to Sept. 11, 1930, nonrecording gages at or near present site at present datum.

REMARKS.--Records good. No diversion above station. Some regulation on tributary and, since Aug. 9, 1950, flow partly regulated by Priest Lake (see sta 12393000).

AVERAGE DISCHARGE.--52 years (1904, 1930-80), 1,656 ft³/s (46.9 m³/s), 24.93 in/yr (633 mm/yr), 1,200,000 acre-ft/yr (1,480 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,500 ft³/s (297 m³/s) May 29, 30, 1948; maximum gage height, 8.97 ft (2.73 m) May 29, 1948; minimum discharge, 150 ft³/s (4.25 m³/s) Nov. 29, 1979, gage height, 0.38 ft (0.116 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,040 ft³/s (199 m³/s) May 10, gage height, 6.95 ft (2.118 m); minimum, 150 ft³/s (4.25 m³/s) Nov. 29, gage height, 0.38 ft (0.116 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 25-30, Jan. 8 to Feb. 1, Feb. 15-17)

0.4	150	2.0	1,040
.6	205	3.0	1,910
.8	280	4.0	3,000
1.0	375	5.0	4,260
1.5	680	6.5	6,370
		8.0	8,670

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	165	1000	222	856	305	1410	1190	6300	2980	1370	427	353
2	165	951	245	848	317	1390	1170	6500	2990	1260	426	522
3	165	928	277	863	371	1360	1160	6710	3070	1180	434	862
4	165	899	365	834	502	1370	1170	6770	3040	1170	426	1080
5	165	863	381	820	595	1300	1200	6770	2990	958	425	1070
6	165	820	460	777	576	1250	1320	6620	2970	856	340	1070
7	408	784	456	526	564	1240	1330	6950	2810	763	322	1070
8	921	756	484	470	654	1210	1280	6960	2590	583	317	1040
9	1310	721	502	420	660	1200	1340	7000	2090	570	294	718
10	1690	687	490	420	634	1180	1460	7000	1670	595	256	697
11	1990	290	480	440	615	1360	1400	6790	1730	615	251	553
12	2160	236	480	490	595	1310	1400	6570	1760	884	248	535
13	2250	260	485	530	583	1270	1430	[illegible]	1970	877	259	551
14	2280	294	490	580	436	1280	1510	6110	2060	870	252	782
15	2220	307	510	630	400	1250	1690	5890	2020	981	287	916
16	2060	312	560	660	400	1200	1830	5650	[illegible]	1020	312	424
17	1930	419	620	650	415	1200	1910	5470	1750	1000	321	285
18	1810	551	700	600	448	1230	2060	5300	1690	996	418	234
19	1760	545	964	530	539	1210	2240	5160	1520	988	600	231
20	1660	466	1140	480	660	1200	2430	5020	1490	981	903	331
21	1550	460	1110	450	742	1190	2540	4530	1400	943	901	522
22	1440	365	1100	460	708	1190	2720	4590	1390	628	899	680
23	1430	284	1030	470	674	1230	2920	4580	1340	478	892	701
24	1390	266	1030	490	647	1200	3260	4450	1040	454	835	695
25	1340	240	1010	490	647	1170	3690	4290	1050	[illegible]	679	691
26	1280	220	981	470	654	1160	3980	4200	1270	442	505	539
27	1240	215	958	450	648	1160	4320	3680	1350	436	313	526
28	1230	210	928	410	1140	1150	4770	3390	1400	431	239	526
29	1170	205	906	370	1360	1160	5560	3250	1560	428	300	520
30	1100	210	884	330	---	1240	6080	3030	1510	425	333	520
31	1050	---	863	300	---	1230	---	2980	---	426	340	---
TOTAL	39659	14754	21126	17114	17689	38500	70410	169050	58380	24056	13804	19244
MEAN	1279	492	681	552	610	1242	2347	5453	1946	776	445	641
MAX	2280	1000	1140	863	1360	1410	6080	7000	3070	1370	903	1080
MIN	165	205	222	300	305	1150	1160	2980	1040	425	239	231
AC-FT	78660	29260	41900	33950	35090	76360	139700	335300	115800	47720	27380	38170

CAL YR 1979 TOTAL 401816 MEAN 1101 MAX 5320 MIN 163 AC-FT 797000
WTR YR 1980 TOTAL 503786 MEAN 1376 MAX 7000 MIN 165 AC-FT 999300

12395000 PRIEST RIVER NEAR PRIEST RIVER, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.
REMARKS.--May 23 sample taken after Mt. St. Helens May 18, 1980, eruption and ashfall.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT
NOV 05...	1025	843	48	8.0	7.0	8.0	23	2	6.4	1.7	1.4	11
MAY 23...	1200	4590	47	7.1	10.0	9.0	18	0	5.0	1.4	1.2	12
JUL 30...	1400	425	79	6.2	26.5	20.5	31	6	9.0	2.1	2.3	13

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)
NOV 05...	.1	.6	21	--	3.5	.3	.1	8.4	--	35	.05	79.7
MAY 23...	.1	.3	19	3.9	1.6	.1	.1	7.9	25	29	.03	310
JUL 30...	.2	.8	25	--	7.9	1.1	.2	12	--	51	.07	58.5

DATE	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)
NOV 05...	--	.01	--	--	--	--	--	--
MAY 23...	.05	.02	.010	.010	.01	.01	2.5	2.5
JUL 30...	--	.14	--	--	--	--	--	--

DATE	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)
NOV 05...	--	--	--	--	--	.010	--	.03
MAY 23...	2.5	.00	2.5	2.6	11	.020	.000	.06
JUL 30...	--	--	--	--	--	.010	--	.03

SUSPENDED-SEDIMENT DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	STREAM-FLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
MAY 23...	4590	23	285

12395000 PRIEST RIVER NEAR PRIEST RIVER, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	ALUMINUM, SUSPENDED RECOV. (UG/L AS AL)	ANTIMONY, TOTAL (UG/L AS SB)	ANTIMONY, SUSPENDED TOTAL (UG/L AS SB)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)
MAY 23...	0	0	0	0	1	0	1	<100	0	* 20	<1	<100

DATE	BORON, SUSPENDED RECOVERABLE (UG/L AS B)	BORON, DISSOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, SUSPENDED RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)
MAY 23...	2	<100	0	0	* <1	0	0	0	<5	0	* <5

DATE	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	LITHIUM SUSPENDED RECOVERABLE (UG/L AS LI)
MAY 23...	5	5	* <10	510	490	20	5	3	* <10	<10	0

DATE	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)
MAY 23...	* <10	<50	20	* 2	<1.0	.0	.0	<10	<10	0	<10

DATE	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
MAY 23...	0	0	0	0	0	0	50	<6.0	<50	0	*<5

*The inductively coupled plasma atomic-emission spectroscopy analytical method was used.

12395500 PEND OREILLE RIVER AT NEWPORT, WA

LOCATION.--Lat 48°10'56", long 117°02'00", in SE¼SW¼SW¼ sec.24, T.56 N., R.6 W. (Boise meridian), Bonner County, Hydrologic Unit 17010216, on left bank at Newport, 0.2 mi (0.3 km) upstream from bridge on U.S. Highway 2, 0.2 mi (0.3 km) east of Idaho-Washington State line, 1.6 mi (2.6 km) downstream from Albeni Falls Dam, and at mile 88.5 (142.4 km).

DRAINAGE AREA.--24,200 mi² (62,700 km²), approximately.

PERIOD OF RECORD.--June 1903 to September 1941, October 1952 to current year. Prior to October 1921, published as Clark Fork at Newport, Wash., October 1921 to September 1937, as Clark Fork at Priest River, Idaho, and October 1937 to September 1941, as Pend Oreille River at Priest River, Idaho.

REVISED RECORDS.--WSP 532: 1903-11.

GAGE.--Water-stage recorder. Datum of gage is 1,999.7 ft (609.509 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 22, 1928, nonrecording gages at Priest River, Newport, or Metaline Falls at various datums (see description, WSP 532, p. 92). Sept. 22, 1928, to Sept. 30, 1935, at datum 2,040.14 ft (621.835 m) National Geodetic Vertical Datum, and Oct. 1, 1935, to Sept. 30, 1941, at datum 2,000 ft (609.6 m) National Geodetic Vertical Datum, water-stage recorder at Priest River. Since December 1952, auxiliary water-stage recorder 2.74 mi (4.4 km) downstream from base gage.

REMARKS.--Records good. Flow regulated at Albeni Falls Dam and affected by storage in Pend Oreille Lake (see sta 12392500), Flathead Lake, Hungry Horse Reservoir, and several smaller reservoirs. Diversions above station for irrigation of about 354,000 acres (143,000 hm²).

AVERAGE DISCHARGE.--66 years (1904-41, 1953-80), 25,930 ft³/s (734 m³/s), 18,790,000 acre-ft/yr (23.2 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 136,000 ft³/s (3,850 m³/s) June 15, 1913, June 21, 1933, June 12, 1972; minimum, 1,280 ft³/s (36 m³/s) Sept. 1, 1961.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1894 reached a stage of about 64.0 ft (19.51 m) present site and datum, discharge, about 200,000 ft³/s (5,660 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 98,300 ft³/s (2,783 m³/s) May 29; maximum gage height, 46.53 ft (14.182 m) May 29; minimum discharge, 2,870 ft³/s (81.3 m³/s) Feb. 19; minimum gage height, 30.87 ft (9.409 m) Feb. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16200	18100	15900	13700	13600	17300	14000	29500	70000	35100	12700	10600
2	18300	13200	15900	13600	14400	16200	12800	29700	66900	33800	11400	10700
3	18500	23000	15100	14100	15200	15900	10200	29600	66800	32800	11000	13500
4	18700	25000	15000	13600	14600	15600	11100	29700	67100	30800	11000	16100
5	21500	25600	16600	16500	13500	15800	11100	29800	70900	30600	12500	16100
6	22700	25500	15100	16900	13600	15900	12000	32200	74600	30900	11900	16200
7	22800	25700	13300	16600	13600	14600	14900	39800	75700	33200	10600	16200
8	22600	25400	13600	16900	14000	12200	16900	42700	75400	32900	9890	16100
9	21400	25600	13700	15100	13800	11300	16900	42900	72100	30400	9210	16100
10	18600	25300	16000	11200	14000	12400	17000	43200	63500	29600	9160	16200
11	16700	24500	18300	11100	13200	16000	13500	43800	52300	29000	8590	16200
12	16700	24900	17900	12700	10500	18800	8770	42000	46200	28200	8230	16100
13	16700	25700	17900	16100	10300	18800	8280	37400	54500	27000	8390	16200
14	16500	25800	17900	16700	14400	14600	10800	38100	62200	27500	10000	16300
15	16400	25600	18100	17100	18300	11000	13300	37500	70500	26400	9400	18900
16	16500	24400	17800	16500	17200	11200	13200	37600	76000	24900	8250	21600
17	16400	24500	18000	16200	10200	11200	12900	37700	77200	24900	8250	21600
18	20700	24000	18500	15900	7410	11600	13100	37400	71700	26300	9890	21800
19	23600	24100	19500	15700	5440	11400	12900	37600	61400	25300	9300	21800
20	23400	21600	21200	15800	3680	12000	13200	38000	59800	23800	8430	21800
21	23500	17400	21400	14700	7250	13100	13000	37900	61400	21000	11800	21700
22	23700	16000	20500	13400	10800	13600	17200	37900	60200	16400	13500	19400
23	23900	17000	19100	13500	10900	13500	20800	39700	54400	16100	15200	16300
24	24400	16600	17800	11800	11300	18000	22800	45400	45400	17400	16900	12800
25	25100	15500	16900	11200	12400	19300	23600	52800	36300	16100	16700	11100
26	25200	15800	15100	11600	14700	18800	23700	66800	34800	14000	14500	13900
27	25100	15900	13900	11700	15700	19300	23500	83000	36300	12700	13300	16400
28	25200	16800	13600	12100	15900	18000	23600	87900	37300	12400	13300	16400
29	25100	17600	13600	13300	16100	13500	25800	98300	37300	12500	13300	16500
30	23300	16100	13900	13400	---	11800	29500	89900	36700	12800	11000	21600
31	21600	---	13800	13500	---	14000	---	79700	---	12600	10600	---
TOTAL	651200	642200	514900	442200	366180	456700	480350	1455500	1774900	747400	348190	506200
MEAN	21010	21410	16610	14260	12630	14730	16010	46950	59160	24110	11230	16870
MAX	25200	25800	21400	17100	18300	19300	29500	98300	77200	35100	16900	21800
MIN	16200	13200	13300	11100	3680	11000	8280	29500	34800	12400	8230	10600
AC-FT	1292000	1274000	1021000	877100	726300	905900	952800	2887000	3521000	1482000	690600	1004000

CAL YR 1979 TOTAL 8199030 MEAN 22460 MAX 74900 MIN 5110 AC-FT 16260000
WTR YR 1980 TOTAL 8385920 MEAN 22910 MAX 98300 MIN 3680 AC-FT 16630000

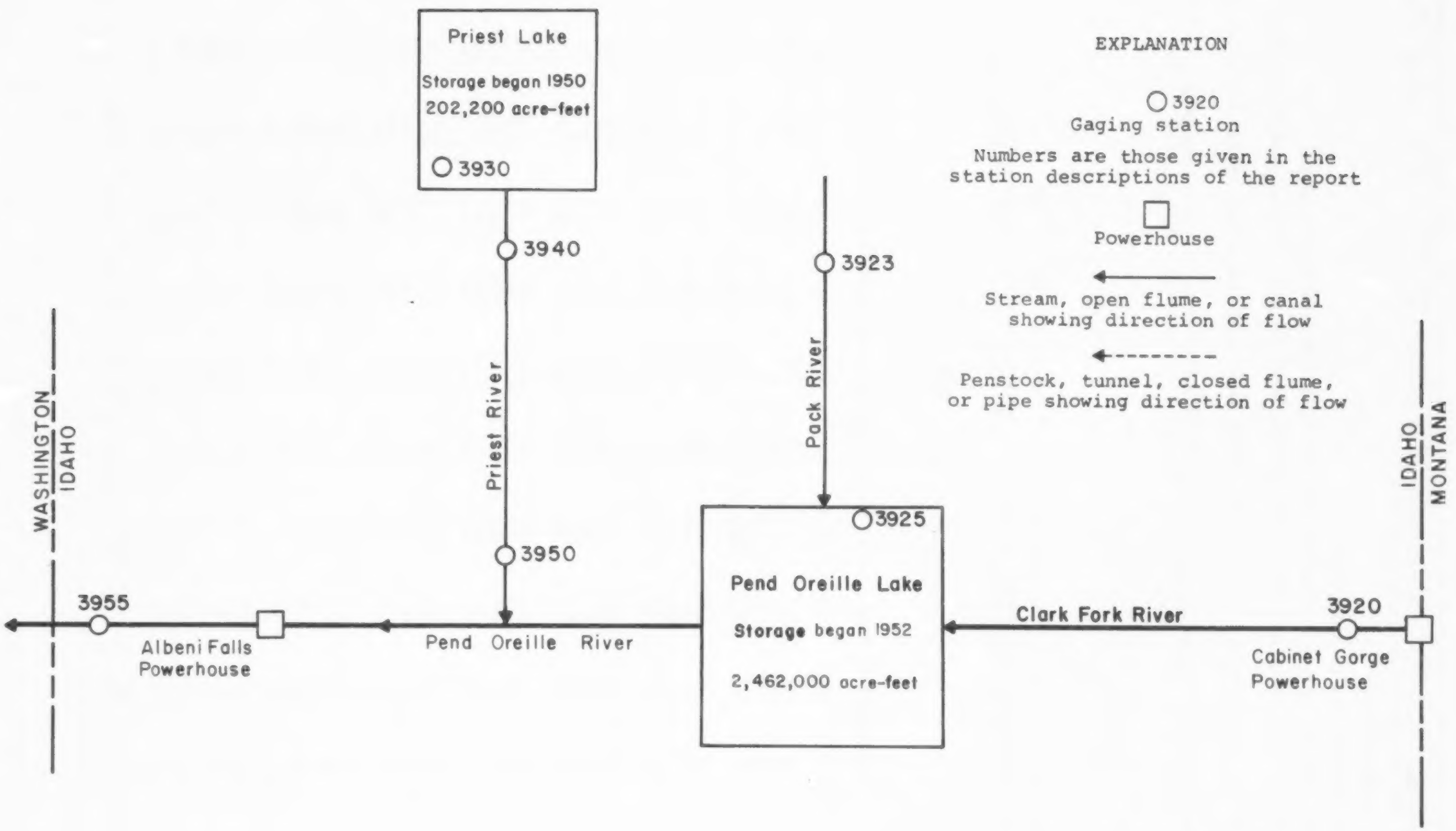

FIGURE 11.--Gaging stations in Pend Oreille River basin.

12411000 COEUR D'ALENE RIVER ABOVE SHOSHONE CREEK, NEAR PRICHARD, ID

LOCATION.--Lat 47°42'30", long 115°58'35", in NE¼SW¼ sec.5, T.50 N., R.4 E., Shoshone County, Hydrologic Unit 17010301, in Coeur d'Alene National Forest, on left bank at Shoshone Creek ranger station, 0.1 mi (0.2 km) downstream from Uranus Creek, 0.5 mi (0.8 km) upstream from Shoshone Creek, 3.5 mi (5.6 km) north of Prichard, and 200.0 mi (322 km) upstream from mouth of Spokane River.

DRAINAGE AREA.--335 mi² (868 km²).

PERIOD OF RECORD.--December 1950 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,485 ft (757 m) from river-profile map.

REMARKS.--Records good except those for winter period and July, which are poor. No regulation or diversion above station.

AVERAGE DISCHARGE.--29 years (1951-80), 719 ft³/s (20.4 m³/s), 29.15 in/yr (740 mm/yr), 520,900 acre-ft/yr (642 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,000 ft³/s (623 m³/s) Jan. 15, 1974, gage height, 11.60 ft (3.536 m); minimum discharge, 34 ft³/s (0.96 m³/s) Dec. 26, 1952, gage height, 0.69 ft (0.210 m); minimum gage height, 0.57 ft (0.174 m) Sept. 27-30, 1979.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 3,600 ft³/s (102 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 21	0945	*3660	104	4.54	1.384

Minimum daily discharge, 66 ft³/s (1.87 m³/s) Oct. 9-12; minimum gage height, unknown.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 29 to Dec. 6, Jan. 5-11, Jan. 20 to Feb. 17)

0.5	57	2.0	775
.7	108	2.7	1360
1.0	212	3.8	2600
1.4	398	4.8	4070

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	92	90	193	200	1220	497	1890	1200	510	180	161
2	68	86	110	182	215	1160	509	1820	1160	490	180	250
3	68	86	150	174	225	1070	503	1720	1110	480	175	240
4	68	86	200	160	230	1040	539	1550	1060	460	170	173
5	68	89	250	140	230	955	599	1430	985	435	165	148
6	68	92	190	135	230	865	705	1370	924	410	158	135
7	67	89	174	120	235	790	726	1230	835	390	155	129
8	67	86	147	115	240	691	677	1120	762	375	152	126
9	66	86	147	115	245	623	638	1080	705	360	156	121
10	66	86	310	125	250	575	812	1040	658	380	151	114
11	66	84	259	170	245	617	827	954	619	395	146	112
12	66	84	241	295	245	575	887	887	632	350	143	109
13	67	84	212	587	245	551	1020	835	916	335	161	123
14	68	89	201	865	230	539	1390	776	894	330	153	169
15	75	100	449	1020	225	503	2180	747	1120	320	142	148
16	80	108	473	761	260	455	2490	820	1230	310	137	128
17	81	94	373	617	360	438	2430	798	1190	295	139	118
18	81	100	449	491	563	426	2850	776	1070	280	226	113
19	108	94	575	388	684	404	3210	769	947	270	198	121
20	130	84	623	340	992	398	3510	740	849	260	161	187
21	121	84	629	290	1160	393	3590	712	769	250	144	210
22	111	86	539	260	1020	409	3240	685	747	245	138	163
23	147	86	449	245	880	467	3280	650	705	235	132	143
24	167	84	388	240	754	485	3340	619	652	225	127	132
25	140	81	338	225	635	461	3240	645	630	215	124	124
26	160	81	291	210	521	449	2720	1250	620	210	121	118
27	140	81	259	190	497	444	2770	1700	640	200	123	115
28	130	79	233	175	790	421	2810	1650	610	195	144	111
29	118	76	208	170	1110	444	2740	1470	580	190	139	108
30	105	78	197	175	---	485	2340	1320	540	190	126	105
31	97	---	169	185	---	473	---	1220	---	185	134	---
TOTAL	2932	2615	9343	9358	13716	18826	57069	34281	25359	9775	4700	4254
MEAN	94.6	87.2	301	302	473	607	1902	1106	845	315	152	142
MAX	167	108	629	1020	1160	1220	3590	1890	1230	510	226	250
MIN	66	76	90	115	200	393	497	619	540	185	121	105
CFSM	.28	.26	.90	.90	1.41	1.81	5.68	3.30	2.52	.94	.45	.42
IN.	.33	.29	1.04	1.04	1.52	2.09	6.34	3.81	2.82	1.09	.52	.47
AC-FT	5820	5190	18530	18560	27210	37340	113200	68000	50300	19390	9320	8440

CAL YR 1979 TOTAL 201910 MEAN 553 MAX 5650 MIN 56 CFSM 1.65 IN 22.42 AC-FT 400500
WTR YR 1980 TOTAL 192228 MEAN 525 MAX 3590 MIN 66 CFSM 1.57 IN 21.35 AC-FT 381300

NOTE.--No gage-height record June 25 to Aug. 5.

12413000 COEUR D'ALENE RIVER AT ENAVILLE, ID

LOCATION.--Lat 47°34'20", long 116°15'10", in NW¼NE¼ sec.30, T.49 N., R.2 E., Shoshone County, Hydrologic Unit 17010301, on right bank 800 ft (244 m) upstream from highway bridge, 1.1 mi (1.8 km) upstream from South Fork, 3.5 mi (5.6 km) downstream from North Fork, and 168.9 mi (271.8 km) upstream from mouth of Spokane River.

DRAINAGE AREA.--895 mi² (2,320 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1911 to April 1913 (fragmentary), October 1939 to current year. Published as North Fork of Coeur d'Alene River at Enaville 1911-13.

REVISED RECORDS.--WSP 1396: 1945.

GAGE.--Water-stage recorder. Datum of gage is 2,100.00 ft (640.080 m) National Geodetic Vertical Datum of 1929. Mar. 3, 1911, to Apr. 12, 1913, nonrecording gage at site 0.2 mi (0.3 km) downstream at different datum. Oct. 18 to Dec. 22, 1939, nonrecording gage at present site and datum.

REMARKS.--Records good. No appreciable regulation or diversion above station.

AVERAGE DISCHARGE.--41 years (1939-80), 1,924 ft³/s (54.5 m³/s), 29.19 in/yr (741 mm/yr), 1,394,000 acre-ft/yr (1,719 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 61,000 ft³/s (1,728 m³/s) Jan. 16, 1974, gage height, 81.32 ft (24.786 m); minimum, 95 ft³/s (2.69 m³/s) Nov. 30, 1979; minimum gage height, 60.10 ft (18.318 m) Dec. 26, 1952.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in December 1933 reached a stage of 79.47 ft (24.2 m) and that in April 1938 a stage of 78.16 ft (23.823 m), from local information concerning high-water marks.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 8,000 ft³/s (227 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 21	1230	*8380	237	67.79	20.662

Minimum discharge, 95 ft³/s (2.69 m³/s) Nov. 30, gage height, 60.95 ft (18.578 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Jan. 26 to Feb. 1, Feb. 14-16)

60.9	73	63.0	1430
61.1	140	64.0	2500
61.4	265	65.0	3790
62.0	620	67.0	6930
62.5	1000	71.0	15500

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	164	262	156	561	780	4150	1430	4660	3390	1400	497	418
2	164	247	316	546	885	3610	1430	4370	3280	1330	484	536
3	164	236	490	548	988	3640	1430	4310	3080	1290	479	600
4	164	232	555	516	1190	3340	1450	3980	2860	1210	474	481
5	164	232	817	522	1070	3090	1550	3740	2620	1160	458	407
6	160	233	662	466	952	2800	1820	3660	2470	1100	446	367
7	160	231	548	383	919	2490	1980	3430	2240	1050	436	345
8	160	228	472	354	903	2160	1900	3020	2000	1010	426	328
9	156	219	447	332	871	1950	1900	2860	1860	982	436	315
10	156	213	734	332	841	1800	2300	2760	1760	1030	429	304
11	156	207	825	360	815	1980	2390	2500	1660	1060	411	298
12	160	203	642	435	793	1970	2470	2310	1650	974	397	290
13	160	196	568	871	761	1850	2680	2160	2520	918	409	306
14	160	182	496	1530	730	1790	3490	2010	3070	887	411	391
15	188	172	1160	2680	700	1680	5300	1960	3540	895	390	393
16	204	172	1490	2490	680	1540	6230	2210	3990	848	375	350
17	202	208	1140	2060	686	1430	5970	2190	3830	802	373	320
18	198	243	1190	1670	733	1410	6600	2100	3350	764	518	302
19	260	243	1530	1280	937	1350	7380	2140	2870	734	546	306
20	341	225	1690	1110	1340	1320	7960	2120	2510	711	459	438
21	314	208	1740	1130	1850	1310	8260	2080	2240	683	407	568
22	291	188	1560	967	1930	1320	7720	2010	2090	655	376	491
23	347	196	1320	981	1770	1420	7590	1940	2000	635	359	429
24	397	204	1160	942	1590	1480	7490	1800	1780	615	344	385
25	370	208	1020	826	1500	1450	7310	1790	1630	595	331	356
26	411	204	887	730	1430	1410	6270	3950	1650	575	324	334
27	384	192	771	690	1540	1380	6220	6270	1700	555	320	319
28	360	164	704	660	2340	1310	6510	5730	1610	542	355	308
29	335	112	635	670	3750	1310	6460	4800	1540	522	354	297
30	302	108	588	700	---	1440	5780	4090	1470	508	333	286
31	276	---	561	720	---	1410	---	3590	---	494	343	---
TOTAL	7429	6168	26854	28064	35274	60590	137270	96540	72210	26534	12700	11268
MEAN	240	206	866	905	1216	1955	4576	3114	2407	856	410	376
MAX	411	262	1740	2680	3750	4150	8260	6270	3990	1400	546	600
MIN	156	108	156	332	680	1310	1430	1790	1470	494	320	286
CFSM	.27	.23	.97	1.01	1.36	2.18	5.11	3.48	2.69	.96	.46	.42
IN.	.31	.26	1.12	1.17	1.47	2.52	5.71	4.01	3.00	1.10	.53	.47
AC-FT	14730	12230	53260	55660	69970	120200	272300	191500	143200	52630	25190	22350

CAL YR 1979 TOTAL 558667 MEAN 1531 MAX 14300 MIN 108 CFSM 1.71 IN 23.22 AC-FT 1108000
WTR YR 1980 TOTAL 520900 MEAN 1423 MAX 8260 MIN 108 CFSM 1.59 IN 21.65 AC-FT 1033000

12413000 COEUR D'ALENE RIVER AT ENAVILLE, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972-73, 1975 to current year.
REMARKS.--Miscellaneous chemical data published for water year 1974. May 20, 21, June 24, and July 15, samples taken after Mt. St. Helens May 18, 1980, eruption and ashfall.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
OCT 16...	1300	212	52	7.3	17.0	12.0	9.8	98	K3	--	--
NOV 15...	0830	192	52	7.6	.0	3.5	11.6	97	K3	--	--
DEC 12...	1330	611	50	7.1	1.0	3.0	12.6	102	<1	--	--
JAN 16...	1100	2490	41	6.7	1.0	2.0	12.9	100	K2	--	--
MAR 26...	1330	1410	46	7.1	10.0	4.0	11.9	98	<1	--	--
APR 29...	1215	6570	37	6.7	14.5	9.0	11.4	107	<1	--	--
MAY 21...	1330	2150	44	6.9	26.0	11.5	10.4	102	<1	29	.04
JUN 24...	1330	1890	44	6.9	24.0	14.0	9.5	99	K2	--	--
JUL 15...	1400	872	51	7.0	22.0	14.5	9.6	103	<1	--	--
AUG 05...	1220	460	53	--	22.0	17.5	--	--	--	--	--
18...	1145	529	54	7.1	19.5	14.0	9.3	98	30	--	--
SEP 17...	0800	320	57	6.8	10.5	13.5	8.8	91	--	--	--

DATE	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS PO4)
OCT 16...	--	0	.02	.27	.28	.30	1.3	.01	.000	.00
NOV 15...	--	5	.02	1.3	1.3	1.3	5.8	.02	.000	.00
DEC 12...	--	7	.07	.14	.16	.23	1.0	.02	.000	.00
JAN 16...	--	5	.07	.22	.23	.30	1.3	.01	.020	.06
MAR 26...	--	0	.00	.45	.45	.45	2.0	.00	.010	.03
APR 29...	--	7	.02	.31	.31	.33	1.5	.00	.010	.03
MAY 21...	168	8	.00	.55	.55	.55	2.4	.00	.010	.03
JUN 24...	--	5	.02	.36	.37	.39	1.7	.01	.010	.03
JUL 15...	--	7	.00	6.8	6.8	6.8	30	.00	.010	.03
AUG 05...	--	--	--	--	--	--	--	--	--	--
18...	--	3	.00	.28	.28	.28	1.2	.00	.020	.06
SEP 17...	--	5	.00	.10	.10	.10	.44	.00	.010	.03

K Results based on counts outside ideal colony count range.

12413000 COEUR D'ALENE RIVER AT ENAVILLE, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
OCT 16...	0	0	5	4	30	1	.0	0
NOV 15...	0	0	6	2	50	5	.1	60
DEC 12...	0	0	8	1	50	4	.0	30
JAN 16...	0	1	--	1	160	10	.1	30
MAR 26...	1	0	8	3	20	2	.1	20
APR 29...	1	0	6	4	370	12	.0	40
MAY 21...	1	1	0	<10	190	5	<1.0	<50
JUN 24...	1	0	--	<10	150	<5	<1.0	50
JUL 15...	0	1	6	<10	70	5	<1.0	50
AUG 18...	1	0	0	5	130	5	.0	30
SEP 17...	0	0	3	4	60	2	.1	50

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	GROSS ALPHA, DIS-SOLVED (PCI/L AS U-NAT)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)
NOV 15...	--	--	--	--	--	<.4	--
DEC 12...	--	<.6	--	--	<.4	--	--
MAR 26...	<.3	<.5	<.3	.5	.5	<.4	<.4
APR 29...	<.3	<.4	<.3	.6	.6	<.4	<.4
MAY 21...	<.3	<.4	.3	<.4	<.4	<.4	<.4
JUN 24...	<.3	<.5	<.3	<.4	<.4	<.4	<.4
JUL 15...	<.4	<.6	<.3	.4	<.4	<.4	<.4
AUG 18...	<.4	<.6	<.3	.4	.4	<.4	<.4
SEP 17...	<.3	<.5	<.3	.7	.7	<.4	<.4

12413140 PLACER CREEK AT WALLACE, ID

LOCATION.--Lat 47°27'50", long 115°56'10", in NE¼SW¼ sec.34, T.48 N., R.4 E., Shoshone County, Hydrologic Unit 17010302, on right bank about 400 ft (122 m) upstream from county road bridge, 0.3 mi (0.5 km) downstream from West Fork, 0.4 mi (0.6 km) south of Wallace city limits, and at mile 1.0 (1.6 km).

DRAINAGE AREA.--14.9 mi² (38.6 km²).

PERIOD OF RECORD.--November 1967 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,840 ft (866 m), from topographic map.

REMARKS.--Records fair. Water for town of Wallace is diverted above the station.

AVERAGE DISCHARGE.--12 years, 38.0 ft³/s (1.08 m³/s), 34.63 in/yr (880 mm/yr), 27,530 acre-ft/yr (33.9 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,200 ft³/s (34.0 m³/s) Jan. 15, 1974, gage height, 4.71 ft (1.44 m); minimum, 0.27 ft³/s (7.65 m³/s) Jan. 28, 1979; minimum gage height, 0.83 ft (0.25 m) Sept. 19, 1974.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 23, 1964, estimated at 1,300 ft³/s (36.8 m³/s) by Idaho Department of Highways on basis of observed depths in concrete flume downstream. Flood in December 1933 reported slightly higher than 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 175 ft³/s (4.96 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 29	0545	*188	5.32	2.88	0.878						

Minimum discharge, 0.40 ft³/s (11.3 m³/s) Nov. 30, gage height, 1.04 ft (0.317 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Jan. 14-16, Apr. 15 to May 8; stage-discharge relation affected by ice Nov. 28, Dec. 2 to Jan. 5-10, 26-31, Feb. 14-15)

0.9	0.18	1.6	12.3
1.0	.36	1.8	28
1.1	.60	2.0	49
1.2	.93	2.2	77
1.3	1.43	2.6	155
1.4	2.8	3.0	267
1.5	6.7	3.5	460

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	2.4	.72	4.6	6.7	39	20	100	49	27	10	6.5
2	1.7	2.0	2.0	4.2	7.8	38	20	119	44	26	10	15
3	1.7	1.8	7.8	4.2	12	36	21	117	42	25	9.9	7.3
4	1.7	1.8	26	3.6	8.8	34	22	117	41	23	9.3	5.5
5	1.6	1.8	12	3.0	8.3	31	26	115	39	22	9.0	5.0
6	1.6	1.7	5.8	2.6	8.8	29	30	119	39	22	8.9	4.6
7	1.6	1.8	4.2	2.3	8.3	27	27	96	37	21	8.6	4.4
8	1.6	1.7	3.9	2.2	8.3	24	25	80	34	20	8.1	4.1
9	1.6	1.7	8.8	2.1	8.3	22	27	75	33	19	8.0	4.0
10	1.6	1.7	23	2.2	8.3	22	29	65	32	23	8.0	4.2
11	1.6	1.6	9.8	2.8	7.8	23	29	59	32	19	7.6	3.5
12	1.6	1.6	6.7	10	7.8	22	31	58	38	21	7.5	3.6
13	1.6	1.5	4.6	16	7.8	21	37	53	44	19	7.9	5.4
14	1.6	1.3	4.2	31	7.6	22	53	50	44	19	7.5	7.6
15	2.8	1.5	19	38	7.2	21	72	51	54	19	7.7	4.1
16	2.4	1.1	12	26	6.7	19	68	50	58	17	7.7	3.6
17	2.2	2.2	15	20	6.9	19	74	48	53	16	8.0	3.3
18	2.8	2.6	23	17	11	18	100	45	47	16	14	3.3
19	7.3	1.8	21	14	19	18	117	47	43	16	8.0	5.4
20	4.2	1.4	17	12	25	17	136	49	41	15	7.4	16
21	3.0	1.2	14	11	26	18	152	48	37	14	6.9	8.6
22	2.8	.97	12	9.3	24	19	155	47	35	14	6.6	5.8
23	5.8	1.4	9.8	8.8	23	22	150	43	34	14	6.3	5.2
24	3.0	1.2	9.3	8.8	22	21	157	38	33	14	5.9	4.3
25	7.8	1.3	8.3	8.8	21	21	128	43	33	14	5.7	3.8
26	5.4	.97	6.3	8.0	21	20	113	71	32	13	5.4	3.6
27	3.6	.66	5.4	7.2	23	19	155	84	31	12	5.4	3.4
28	3.3	.55	5.0	6.5	29	18	172	74	31	12	5.6	3.3
29	3.0	.47	4.2	6.2	37	20	172	61	30	12	5.1	3.3
30	2.8	.52	3.9	6.0	---	20	123	54	27	11	5.0	3.3
31	2.4	---	3.9	6.2	---	20	---	49	---	10	5.9	---
TOTAL	87.4	44.26	308.62	304.6	418.4	720	2441	2125	1167	545	236.9	161.0
MEAN	2.82	1.47	9.96	9.83	14.4	23.2	81.4	68.5	38.9	17.6	7.64	5.37
MAX	7.8	2.6	26	38	37	39	172	119	58	27	14	16
MIN	1.6	.47	.72	2.1	6.7	17	20	38	27	10	5.0	3.3
CFSM	.19	.10	.67	.66	.97	1.56	5.46	4.60	2.61	1.18	.51	.36
IN.	.22	.11	.77	.76	1.04	1.80	6.09	5.31	2.91	1.36	.59	.40
AC-FT	173	88	612	604	830	1430	4840	4210	2310	1080	470	319

CAL YR 1979 TOTAL 10605.60 MEAN 29.1 MAX 439 MIN .28 CFSM 1.95 IN 26.48 AC-FT 21040
WTR YR 1980 TOTAL 8559.16 MEAN 23.4 MAX 172 MIN .47 CFSM 1.57 IN 21.37 AC-FT 16980

12413150 SOUTH FORK COEUR D'ALENE RIVER AT SILVERTON, ID

LOCATION.--Lat 47°29'29", long 115°57'12", in SW¼NW¼SE¼ sec.21, T.48 N., R.4 E., Shoshone County, Hydrologic Unit 17010302, on upstream side of bridge at the off ramp of U.S. Highway I-90 at Silverton, 700 ft (213 m) downstream from Lake Creek, and at mile 17.4 (28.0 km).

DRAINAGE AREA.--108 mi² (280 km²). Area at site used prior to Sept. 1, 1976, 103 mi² (267 km²).

PERIOD OF RECORD.--November 1967 to current year.

GAGE.--Nonrecording and crest-stage gages. Datum of gage is 2,641.48 ft (805.1 m) National Geodetic Vertical Datum of 1929 (levels by Idaho Department of Transportation. Prior to Sept. 1, 1976, at site 1,100 ft (335 m) upstream at different datum. September 1976 to June 7, 1978, at datum 1 ft (0.3 m) higher.

REMARKS.--Records fair. Some flow is diverted through smelters and returned to stream above station.

AVERAGE DISCHARGE.--12 years, 251 ft³/s (7.11 m³/s), 31.56 in/yr (802 mm/yr), 181,800 acre-ft/yr (224 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,300 ft³/s (122 m³/s) Jan. 16, 1974, gage height, 10.80 ft (3.29 m); minimum daily, 24 ft³/s (0.680 m³/s) Dec. 30, 1979; minimum gage height, 2.85 ft (0.869 m) Oct. 7, 8, Dec. 31, 1974 (site and datum then in use).

EXTREMES FOR CURRENT YEAR.--Maximum observed discharge, 1,360 ft³/s (38.5 m³/s) Apr. 29, gage height, 7.50 ft (2.286 m); minimum observed, 31 ft³/s (0.878 m³/s) Nov. 29, gage height, 3.75 ft (1.143 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 30 to Dec. 2, Jan. 4, 6-12, 20,
Jan. 29 to Feb. 3, Feb. 12)

3.7	28	5.4	330
4.0	50	6.0	565
4.4	99	6.8	960
4.8	174	8.0	1710

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	49	35	55	45	183	106	805	610	240	105	69
2	46	47	50	55	52	186	106	932	542	232	104	92
3	44	47	78	55	58	174	106	996	512	220	104	83
4	45	47	197	52	71	174	104	960	432	208	99	71
5	45	47	92	50	78	174	118	1020	420	208	92	71
6	44	45	71	45	75	161	142	1100	408	197	92	71
7	44	44	66	38	66	147	132	1020	412	197	92	69
8	44	44	62	37	60	132	132	855	408	190	92	66
9	43	44	60	36	57	147	142	830	400	179	88	61
10	41	44	123	37	57	123	147	730	396	232	84	61
11	41	44	78	40	56	132	138	632	393	197	84	64
12	44	44	69	60	55	114	142	588	400	197	84	62
13	44	44	66	90	50	114	164	542	624	174	81	69
14	42	43	60	164	45	121	245	520	610	174	81	78
15	50	41	114	220	43	110	400	524	910	170	79	68
16	50	41	81	157	46	106	382	534	880	164	79	60
17	49	48	87	132	60	99	382	500	750	164	78	60
18	45	47	114	111	71	99	542	492	624	153	123	60
19	71	46	102	92	92	99	680	480	556	149	87	66
20	55	44	96	86	110	99	820	500	538	149	80	106
21	57	44	88	81	106	99	905	534	400	138	78	81
22	54	44	80	81	104	99	905	655	379	132	78	72
23	63	42	74	78	99	114	988	542	350	132	78	69
24	60	42	75	74	94	106	1120	480	334	123	75	67
25	57	42	69	68	90	106	988	460	312	123	75	68
26	71	40	66	42	92	99	880	1040	303	119	74	62
27	62	39	60	39	104	104	1070	960	285	114	71	62
28	60	34	55	38	153	99	1240	830	265	114	71	61
29	60	31	55	37	186	106	1360	695	258	110	72	58
30	54	31	55	38	---	108	1040	614	258	106	70	58
31	51	---	55	39	---	106	---	592	---	106	69	---
TOTAL	1581	1289	2433	2227	2275	3840	15626	21964	13969	5111	2619	2065
MEAN	51.0	43.0	78.5	71.8	78.4	124	521	709	466	165	84.5	68.8
MAX	71	49	197	220	186	186	1360	1100	910	240	123	106
MIN	41	31	35	36	43	99	104	460	258	106	69	58
CFSM	.50	.42	.76	.70	.76	1.20	5.06	6.88	4.52	1.60	.82	.67
IN.	.57	.47	.88	.80	.82	1.39	5.64	7.93	5.05	1.85	.95	.75
AC-FT	3140	2560	4830	4420	4510	7620	30990	43570	27710	10140	5190	4100

CAL YR 1979 TOTAL 75137 MEAN 206 MAX 1860 MIN 29 CFSM 2.00 IN 27.14 AC-FT 149000
WTR YR 1980 TOTAL 74999 MEAN 205 MAX 1360 MIN 31 CFSM 1.99 IN 27.09 AC-FT 148800

12413250 SOUTH FORK COEUR D'ALENE RIVER AT KELLOGG, ID

LOCATION.--Lat 47°32'49", long 116°08'09", in SE¼ sec.36, T.49 N., R.2 E., Shoshone County, Hydrologic Unit 17010302, on left bank at concrete bridge on New Street in Kellogg, 100 ft (30 m) upstream from Bunker Hill settling pond, 200 ft (61 m) downstream from Jackass Creek, 1.9 mi (3.1 km) upstream from Government Gulch, and at mile 6.9 (11.1 km).

DRAINAGE AREA.--194 mi² (502 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1974 to current year. Records for December 1966 to March 1974 at site 1.9 mi (3.1 km) downstream ("at Smelterville", sta 12413300) not equivalent owing to difference in drainage areas.

GAGE.--Water-stage recorder. Altitude of gage is 2,300 ft (701 m), from topographic map.

REMARKS.--Records good except those for September, which are fair.

AVERAGE DISCHARGE.--6 years, 344 ft³/s (9.74 m³/s), 24.08 in/yr (612 mm/yr), 249,200 acre-ft/yr (307 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,100 ft³/s (314 m³/s) Jan. 16, 1974, gage height, 16.30 ft (4.968 m); minimum, 30 ft³/s (0.850 m³/s) Jan. 11, 1975, gage height, 9.30 ft (2.835 m).

EXTREMES FOR CURRENT YEAR.-- Peak discharge above base of 1,500 ft³/s (42.5 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 29	0845	2010	56.9	*12.28	3.743	June 14	2300	1590	45.0	11.91	3.630
May 26	1630	*2040	57.8	12.27	3.740						

Minimum daily discharge, 36 ft³/s (1.02 m³/s) Nov. 30; minimum gage height, 9.59 ft (2.923 m) Nov. 29.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 28 to Dec. 2, Jan. 5-13,
Jan. 26 to Feb. 1, Feb. 15-16;
shifting-control method used Apr. 24, Apr. 27 to May 2)

9.5	24	10.8	550
9.7	58	11.2	870
9.9	108	11.6	1270
10.1	175	12.0	1760
10.4	310	13.0	3370

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	83	42	108	84	388	205	1110	894	342	133	102
2	63	80	53	111	105	372	202	1270	833	336	130	135
3	60	80	112	112	148	352	182	1340	745	312	133	110
4	63	80	195	109	138	343	193	1310	682	306	126	102
5	60	80	181	98	119	322	221	1350	627	295	126	100
6	60	78	127	91	113	294	243	1430	633	284	122	99
7	58	76	112	88	109	275	245	1240	578	273	118	98
8	60	72	106	87	108	256	243	1070	563	258	116	91
9	58	71	110	89	105	247	261	1010	555	254	114	86
10	52	71	195	93	106	232	250	898	544	327	114	85
11	57	71	141	100	105	249	224	807	522	243	107	91
12	57	70	126	150	103	239	233	748	603	253	103	88
13	61	68	112	230	100	228	255	713	884	242	106	98
14	60	67	110	96	90	230	325	678	945	239	105	110
15	77	65	195	90	115	224	396	726	1490	230	103	96
16	75	65	172	332	93	218	341	746	1360	251	103	87
17	71	70	159	244	101	205	325	689	1140	233	105	85
18	72	75	205	187	120	197	362	651	933	215	150	87
19	101	70	197	176	169	189	426	655	780	207	113	97
20	99	66	175	143	249	195	1110	710	692	195	111	150
21	92	62	160	126	284	209	1320	766	620	187	111	120
22	89	61	138	110	260	213	1320	703	578	179	111	105
23	98	65	123	100	231	228	1390	591	529	171	110	97
24	88	60	119	91	215	221	1450	490	474	164	106	95
25	105	62	117	84	203	219	1330	569	464	160	104	97
26	123	58	112	72	204	203	1220	1740	472	160	103	90
27	100	56	106	67	222	171	1410	1810	492	157	100	88
28	99	43	105	64	292	177	1610	1470	432	150	100	85
29	96	37	101	64	384	205	1830	1220	405	143	100	83
30	89	36	100	66	---	214	1430	1030	360	140	99	82
31	85	---	100	74	---	209	---	917	---	133	97	---
TOTAL	2391	1998	4106	3652	4675	7524	20552	30457	20829	7039	3479	2939
MEAN	77.1	66.6	132	118	161	243	685	982	694	227	112	98.0
MAX	123	83	205	332	384	388	1830	1810	1490	342	150	150
MIN	52	36	42	64	84	171	182	490	360	133	97	82
AC-FT	4740	3960	8140	7240	9270	14920	40760	60410	41310	13960	6900	5830

CAL YR 1979 TOTAL 116357 MEAN 319 MAX 3070 MIN 36 AC-FT 230800
WTR YR 1980 TOTAL 109641 MEAN 300 MAX 1830 MIN 36 AC-FT 217500

NOTE.--No gage-height record Aug. 21 to Sept. 30.

12413250 SOUTH FORK COEUR D'ALENE RIVER AT KELLOGG, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.
REMARKS.--Miscellaneous chemical data published for water year 1977. May 21 sample taken after Mt. St. Helens May 18, 1980, eruption and ashfall.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT
NOV 15...	0730	89	202	7.1	.0	1.5	71	32	19	5.7	7.5	25
MAY 21...	0900	768	72	6.4	23.0	8.5	27	6	7.6	2.0	1.5	11
JUN 25...	1310	447	113	7.1	20.0	14.5	44	14	12	3.5	1.9	8

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
NOV 15...	.4	1.4	39	--	49	1.2	--	9.6	--	119	.16	28.6
MAY 21...	.1	.5	21	14	11	.3	.0	7.3	44	44	.06	84.1
JUN 25...	.1	.7	30	--	17	.4	.1	9.3	--	63	.09	76.0

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)
NOV 15...	--	.54	--	--	--	--	--	--
MAY 21...	.08	.08	.010	.030	.01	.04	.53	.26
JUN 25...	--	.10	--	--	--	--	--	--

DATE	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS PO4)
NOV 15...	--	--	--	--	--	.000	--	.00
MAY 21...	.54	.25	.29	.62	2.7	.030	.010	.09
JUN 25...	--	--	--	--	--	.010	--	.03

SUSPENDED-SEDIMENT DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
MAY 21...	768	85	162

12413250 SOUTH FORK COEUR D'ALENE RIVER AT KELLOGG, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, SUSPENDED RECOV. (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, TOTAL (UG/L AS SB)	ANTIMONY, SUSPENDED TOTAL (UG/L AS SB)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA)
NOV 15...	--	--	--	--	--	--	--	--	--	--	--
MAY 21...	780	720	<100	0	0	0	1	0	1	<100	0

DATE	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	BORON, SUSPENDED RECOVERABLE (UG/L AS B)	BORON, DISSOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)
NOV 15...	--	--	--	--	--	--	--	--	--	--	--
MAY 21...	*30	<1	<100	10	<100	5	1	*4	0	0	0

DATE	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)
NOV 15...	--	--	--	--	--	--	--	--	--	--	--
MAY 21...	<5	*<5	<10	9	*<10	500	1300	<10	63	57	*<10

DATE	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	LITHIUM SUSPENDED RECOVERABLE (UG/L AS LI)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)
NOV 15...	--	--	--	1	--	--	--	--	--	--	--
MAY 21...	<10	0	*<10	70	30	*40	<1.0	.1	.0	<10	<10

DATE	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)
NOV 15...	--	--	--	--	--	--	--	--	--	--	--
MAY 21...	0	<10	0	0	0	0	0	0	30	<6.0	0

*The inductively coupled plasma atomic-emission spectroscopy analytical method was used.

12413490 SOUTH FORK COEUR D'ALENE RIVER AT ENAVILLE, ID

LOCATION.--Lat 47°33'35", long 116°15'03", in SW¼ sec.30, T.49 N., R.2 E., Shoshone County, Hydrologic Unit 17010302, at highway crossing, at Enaville.
DRAINAGE AREA.--Not determined.
PERIOD OF RECORD.--Water years 1972-73, 1975 to current year. May 21, June 24, and July 15, samples taken after Mt. St. Helens May 18, 1980, eruption and ashfall.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
OCT 16...	1215	112	459	7.1	17.0	13.0	10.0	102	K6	--	--
NOV 15...	0900	138	493	6.7	.0	3.5	11.4	95	K15	--	--
DEC 12...	1230	220	281	6.8	1.0	4.5	11.7	98	31	--	--
JAN 16...	0945	927	180	7.7	3.0	5.0	11.7	99	K17	--	--
MAR 26...	1230	383	252	6.6	10.0	5.5	12.0	102	K1	--	--
APR 29...	1430	2360	75	6.6	14.5	8.0	10.9	100	<1	--	--
MAY 21...	1230	1300	121	6.5	26.0	11.0	10.6	104	K7	70	.10
JUN 24...	1230	805	177	6.7	23.0	14.0	9.8	102	K2	--	--
JUL 15...	1330	347	208	6.9	20.5	15.0	10.0	108	K6	--	--
AUG 18...	1115	275	305	6.6	19.5	14.0	9.1	96	200	--	--
SEP 17...	0900	154	450	6.9	10.5	12.0	9.6	97	--	--	--

DATE	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS PO4)
OCT 16...	--	0	.34	.74	1.3	1.6	7.3	.88	.390	1.2
NOV 15...	--	10	.56	.25	1.0	1.6	6.9	.91	.370	1.1
DEC 12...	--	4	.51	.30	.66	1.2	5.2	.44	.120	.37
JAN 16...	--	14	.40	.27	.43	.83	3.7	.19	.200	.61
MAR 26...	--	5	.24	.44	.77	1.0	4.5	.40	.170	.52
APR 29...	--	60	.07	.49	.49	.56	2.5	.00	.120	.37
MAY 21...	246	39	.07	.23	.30	.37	1.6	.16	.110	.34
JUN 24...	--	20	.16	1.3	1.4	1.6	6.9	.13	.090	.28
JUL 15...	--	10	.00	.60	.60	.60	2.7	.00	.210	.64
AUG 18...	--	49	.24	.45	.51	.75	3.3	.07	.750	2.3
SEP 17...	--	19	.28	.38	.82	1.1	4.9	.53	.600	1.8

K Results based on counts outside ideal colony count range.

12413490 SOUTH FORK COEUR D'ALENE RIVER AT ENAVILLE, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
OCT 16...	4	69	8	14	2000	46	.2	4400
NOV 15...	4	63	5	7	2100	28	.2	4500
DEC 12...	4	3	16	7	1300	39	.0	4000
JAN 16...	5	120	--	13	2100	110	.2	2900
MAR 26...	4	19	5	6	1000	31	.1	2500
APR 29...	6	10	1	15	2900	450	.4	970
MAY 21...	3	9	1	<10	1500	100	<1.0	1100
JUN 24...	2	13	--	<10	760	34	<1.0	1800
JUL 15...	2	14	8	<10	1200	43	<1.0	2300
AUG 18...	9	33	0	20	5300	210	.1	3900
SEP 17...	5	25	6	9	2700	86	.2	4000

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	GROSS ALPHA, DISSOLVED (PCI/L AS U-NAT)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)
NOV 15...	--	--	--	--	--	<.4	--
DEC 12...	--	<2.5	--	--	2.5	--	--
MAR 26...	<1.6	<2.4	<.3	1.8	1.9	<.4	<.4
APR 29...	<.9	<1.3	2.9	<1.2	<1.2	2.6	2.6
MAY 21...	<.6	<.9	.7	.8	.8	.5	.5
JUN 24...	<1.3	<1.9	<.3	.9	.9	<.4	<.4
JUL 15...	<1.1	<1.6	<.3	1.8	1.8	<.4	<.4
AUG 18...	<1.8	<2.7	2.5	1.9	1.8	3.2	3.3
SEP 17...	<2.5	<3.7	1.4	4.0	3.8	.9	1.0

12413810 COEUR D'ALENE RIVER AT ROSE LAKE, ID

LOCATION.--Lat 47°32'14", long 116°28'17", in SW¼SE¼NW¼ sec.4, T.48 N., R.1 W., Kootenai County, Hydrologic Unit 17010303, at wooden bridge crossing river at Rose Lake.
DRAINAGE AREA.--1,318 mi² (3,414 km²).
PERIOD OF RECORD.--Water years 1972 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)
OCT									
17...	0900	335	239	6.8	8.0	11.5	9.4	94	K12
NOV									
14...	1415	324	226	7.3	7.0	5.0	11.3	96	K5
DEC									
12...	1045	864	112	5.4	4.0	3.0	12.4	100	K3
JAN									
15...	1000	4320	87	6.7	1.0	3.0	12.0	97	35
MAR									
26...	1000	1750	94	6.9	7.0	5.0	12.9	112	<1
APR									
29...	1015	10500	41	6.4	11.0	9.0	10.5	98	<1
MAY									
20...	1530	3190	69	6.4	24.0	11.0	11.1	109	K4
JUN									
24...	1115	2650	82	6.6	20.5	13.5	9.5	98	K6
JUL									
15...	1215	1260	102	6.7	18.5	15.0	8.7	94	K5
AUG									
18...	1000	756	175	6.5	14.0	18.0	8.9	101	K1
SEP									
16...	1430	514	162	7.1	24.0	17.0	9.3	104	--

DATE	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS PO4)
OCT									
17...	0	.17	.35	.42	.59	2.6	.08	.030	.09
NOV									
14...	2	.25	.42	.59	.84	3.7	.21	.060	.18
DEC									
12...	32	.17	.33	.39	.56	2.5	.07	.040	.12
JAN									
15...	72	.18	.51	.56	.74	3.3	.06	.520	1.6
MAR									
26...	3	.05	.48	.60	.65	2.9	.15	.110	.34
APR									
29...	14	.03	.38	.38	.41	1.8	.00	.030	.09
MAY									
20...	24	.06	.89	.92	.98	4.3	.04	.040	.12
JUN									
24...	0	.05	.25	.26	.31	1.4	.01	.050	.15
JUL									
15...	0	.03	.40	.41	.44	1.9	.01	.040	.12
AUG									
18...	5	.00	1.9	1.9	1.9	8.4	.00	.050	.15
SEP									
16...	0	.05	.28	.31	.36	1.6	.04	.060	.18

K Results based on counts outside ideal colony count range.

12413810 COEUR D'ALENE RIVER AT ROSE LAKE, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
OCT 17...	2	36	6	4	470	24	.1	1500
NOV 14...	4	9	9	5	1600	58	.1	1700
DEC 12...	7	14	0	10	3000	250	.2	1000
JAN 15...	24	--	--	32	8500	680	1.1	1800
MAR 26...	4	7	8	12	2200	9	.2	700
APR 29...	3	3	6	6	1300	130	.1	300
MAY 20...	2	5	0	7	610	25	.1	450
JUN 24...	1	4	--	7	290	13	.0	520
JUL 15...	1	5	8	6	410	7	.1	840
AUG 18...	2	5	0	6	500	34	.1	990
SEP 16...	2	8	6	5	510	41	.2	1200

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	GROSS ALPHA, DIS- SOLVED (PCI/L AS U-NAT)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)
NOV 14...	--	--	--	--	--	<.4	<.4
DEC 12...	--	--	--	--	.8	--	--
JAN 15...	--	<.7	--	--	--	8.0	--
MAR 26...	<.5	<.7	.5	.5	.5	.7	.7
APR 29...	.3	.5	.6	.5	.5	.9	.9
MAY 20...	<.3	<.4	.5	.6	.5	.7	.8
JUN 24...	<.3	<.5	<.3	.7	.7	<.4	<.4
JUL 15...	<.6	<.9	<.3	.9	.8	<.4	<.4
AUG 18...	--	<1.5	--	1.1	1.0	<.4	<.4
SEP 16...	<.7	<1.1	.4	1.4	1.4	<.4	<.4

12414500 ST. JOE RIVER AT CALDER, ID

LOCATION.--Lat 47°16'30", long 116°11'15", in NW¼SE¼ sec.3, T.45 N., R.2 E., Shoshone County, Hydrologic Unit 17010304, on right bank 150 ft (46 m) southwest of Chicago, Milwaukee, St. Paul, and Pacific Railroad station at Calder, and at mile 42.9 (69 km).

DRAINAGE AREA.--1,030 mi^2 (2,668 km^2), approximately.

PERIOD OF RECORD.--April 1911 to September 1912 (published as "near Calder"), July 1920 to current year.

REVISED RECORDS.--WSP 1182: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,171.76 ft (661.952 m) National Geodetic Vertical Datum of 1929. Apr. 14, 1911, to Sept. 30, 1912, nonrecording gage at site 2.5 mi (4 km) downstream at different datum. Nonrecording gage at present site July 13 to Dec. 21, 1920, water-stage recorder at present site thereafter. Datum July 13, 1920, to Sept. 30, 1966, 75 ft (22.9 m) lower than present datum and datum Oct. 1, 1966, to Aug. 14, 1972, 15 ft (4.572 m) lower than present datum.

REMARKS.--Records good except those for January and February, which are fair. No diversion above gage.

AVERAGE DISCHARGE.--61 years, 2,364 ft^3/s (66.9 m^3/s), 31.17 in/yr (792 mm/yr), 1,713,000 acre-ft/yr (2,112 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 53,000 ft^3/s (1,500 m^3/s) Dec. 23, 1933, computed on basis of slope between gages downstream; maximum gage height, 18.1 ft (5.5 m) Apr. 18, 1938, from floodmark, present datum; minimum discharge, 87 ft^3/s (2.46 m^3/s) Nov. 29, 1979; minimum gage height, 3.43 ft (1.05 m) Dec. 5, 1928, present datum.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 8,500 ft^3/s (241 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Apr. 29	0730	*12800	362	11.33	3.453						

Minimum discharge, 87 ft^3/s (2.46 m^3/s) Nov. 29, gage height, 4.32 ft (1.317 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 15 to June 19; stage-discharge relation
affected by ice Jan. 5-11, Jan. 21 to Feb. 1, Feb. 16)

4.5	150	7.0	2,280
4.6	162	8.0	3,920
5.0	356	10.0	8,400
5.5	680	12.0	14,300
6.0	1,100		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	296	340	412	575	730	2950	998	8490	6240	2010	780	621
2	296	318	590	547	811	2310	998	8910	6260	1950	753	868
3	296	318	846	520	1130	2170	1030	9340	5770	1960	743	896
4	291	335	1150	400	1360	2260	1100	9250	5390	1860	742	601
5	291	329	1320	380	1140	2010	1250	9390	5090	1780	719	528
6	291	324	736	355	998	1820	1580	9920	5210	1690	699	499
7	285	312	619	340	953	1630	1560	9010	4920	1610	684	489
8	285	307	604	330	881	1440	1410	8080	4730	1560	666	480
9	280	296	590	335	811	1320	1420	7800	4650	1550	653	460
10	280	296	1100	360	777	1260	1570	7270	4560	1630	640	451
11	280	291	811	450	736	1460	1540	6600	4400	1550	624	451
12	280	264	634	547	703	1420	1730	6130	4600	1510	615	441
13	280	192	561	980	695	1310	2260	5790	5230	1550	655	488
14	280	154	520	2150	679	1340	3510	5530	4880	1560	622	630
15	358	167	953	2490	649	1310	5330	5510	5510	1510	594	511
16	412	225	899	1810	600	1160	5090	5650	5190	1370	574	461
17	346	507	752	1420	619	1070	5190	5210	4900	1290	566	442
18	340	541	1150	1100	711	1050	6670	4940	4510	1220	893	431
19	534	394	1070	846	1030	998	7980	4990	4120	1180	779	477
20	597	307	925	828	1650	980	8850	5310	3790	1140	626	748
21	493	220	826	760	1840	998	10000	5690	3490	1100	580	857
22	437	175	777	740	1610	1050	10200	6180	3270	1060	558	619
23	513	296	663	730	1380	1160	10700	5670	3160	1020	545	533
24	507	364	634	720	1230	1130	11100	4920	2890	982	526	502
25	480	312	612	690	1130	1050	10000	4990	2660	954	519	474
26	752	264	568	640	1110	1040	8990	7650	2540	922	508	460
27	541	249	513	600	1250	1050	10200	7850	2600	894	499	447
28	467	249	455	600	1750	971	11400	7290	2440	869	521	438
29	443	220	370	610	2550	980	12400	6690	2250	843	506	429
30	400	225	364	620	---	1030	10200	6240	2120	811	492	422
31	370	---	400	660	---	971	---	5900	---	792	543	---
TOTAL	12001	8791	22426	24133	31513	42298	166256	212190	127370	41727	19426	16154
MEAN	387	293	723	778	1087	1364	5542	6845	4246	1346	627	538
MAX	752	541	1320	2490	2550	2950	12400	9920	6260	2010	893	896
MIN	280	154	364	330	600	971	998	4920	2120	792	492	422
CFSM	.38	.28	.70	.76	1.06	1.32	5.38	6.65	4.12	1.31	.61	.52
IN.	.43	.32	.81	.87	1.14	1.53	6.00	7.66	4.60	1.51	.70	.58
AC-FT	23800	17440	44480	47870	62510	83900	329800	420900	252600	82770	38530	32040

CAL YR 1979 TOTAL 742470 MEAN 2034 MAX 20100 MIN 154 CFSM 1.98 IN 26.82 AC-FT 1473000
WTR YR 1980 TOTAL 724285 MEAN 1979 MAX 12400 MIN 154 CFSM 1.92 IN 26.16 AC-FT 1437000

12414900 ST. MARIES RIVER NEAR SANTA, ID

LOCATION.--Lat 47°10'35", long 116°29'30", in SE¼NW¼ sec.8, T.44 N., R.1 W., Benewah County, Hydrologic Unit 17010304, on right bank 450 ft (137 m) upstream from bridge on U.S. Highway 95 Alternate, 0.3 mi (0.5 km) upstream from Santa Creek, 2.7 mi (4.3 km) northwest of Santa, and at mile 24.6 (39.6 km).

DRAINAGE AREA.--275 mi² (712 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1965 to current year.

REVISED RECORDS.--WRD Idaho 1974: 1968-70(M), 1972(M).

GAGE.--Water-stage recorder. Datum of gage is 2,574.56 ft (784.726 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are fair.

AVERAGE DISCHARGE.--15 years, 352 ft³/s (9.97 m³/s), 17.38 in/yr (441 mm/yr), 255,000 acre-ft/yr (314 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,700 ft³/s (303 m³/s) Jan. 15, 1974, gage height, 12.60 ft (3.84 m); minimum, 15 ft³/s (0.425 m³/s) Nov. 11, 1978, gage height, 3.32 ft (1.072 m).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1500 ft³/s (42.5 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 13	1945	ice jam		*7.17	2.185	May 26	1215	*1510	42.8	6.75	2.057

Minimum discharge, 19 ft³/s (0.538 m³/s) Nov. 28, gage height, 3.44 ft (1.049 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 29 to Dec. 3,
Jan. 5-15, Jan. 28 to Feb. 1, Feb. 15-16, 20)

3.5	22	4.8	226
3.6	28	5.3	426
3.8	42	5.8	710
4.1	76	6.3	1080
4.4	127	7.0	1770

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	59	46	97	120	735	242	567	719	180	75	78
2	40	57	80	108	145	601	222	519	700	174	75	97
3	40	56	160	102	230	545	220	486	585	189	74	127
4	40	56	338	67	338	769	229	464	520	169	74	80
5	40	56	363	64	224	604	253	443	470	164	72	71
6	40	56	168	61	194	479	344	474	483	152	71	66
7	40	54	125	60	185	393	330	481	476	143	71	65
8	40	52	123	60	173	339	287	446	400	136	71	64
9	40	53	121	62	156	331	334	435	365	132	70	61
10	40	52	199	67	149	347	468	431	339	164	68	59
11	41	51	110	75	137	631	425	381	314	175	67	59
12	41	48	119	95	121	561	427	336	383	155	67	56
13	41	41	99	150	117	466	472	323	1040	157	67	61
14	41	45	91	250	110	655	602	303	741	160	66	80
15	57	54	139	400	98	683	833	294	1010	176	65	72
16	85	68	214	532	98	448	777	352	814	145	64	62
17	58	74	154	413	99	351	754	314	651	130	62	59
18	54	127	271	275	176	344	806	284	552	120	104	58
19	129	88	199	166	424	311	832	266	471	116	110	60
20	147	67	163	156	700	329	833	249	415	111	83	79
21	96	56	143	161	723	327	827	238	373	105	72	102
22	88	51	135	137	485	333	776	239	340	102	68	78
23	96	68	108	149	350	338	754	245	332	97	66	70
24	101	60	113	133	285	301	719	236	296	94	66	67
25	79	60	102	113	264	267	643	304	257	90	62	65
26	143	50	101	74	276	258	593	1330	250	88	60	62
27	88	52	91	60	409	265	571	963	253	86	60	60
28	75	26	74	60	617	240	578	714	232	80	60	59
29	75	25	60	64	908	245	695	597	209	79	60	57
30	70	26	75	75	---	283	664	554	191	78	60	54
31	64	---	91	90	---	263	---	561	---	76	64	---
TOTAL	2068	1688	4375	4376	8311	13042	16512	13829	14181	4023	2174	2088
MEAN	66.7	56.3	141	141	287	421	550	446	473	130	70.1	69.6
MAX	147	127	363	532	908	769	833	1330	1040	189	110	127
MIN	39	25	46	60	98	240	220	236	191	76	60	54
AC-FT	4100	3350	8680	8680	16490	25870	32750	27430	28130	7980	4310	4140

CAL YR 1979 TOTAL 117487 MEAN 322 MAX 5210 MIN 25 AC-FT 233000
WTR YR 1980 TOTAL 86667 MEAN 237 MAX 1330 MIN 25 AC-FT 171900

12414900 ST. MARIES RIVER NEAR SANTA, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.
REMARKS.--Miscellaneous chemical data published for water year 1977. May 22 samples taken after Mt. St. Helens May 18, 1980, eruption and ashfall.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT
NOV. 14...	1230	48	59	8.5	7.0	1.0	22	3	6.5	1.5	2.8	26
MAY 22...	1400	250	46	7.0	7.0	12.0	14	0	4.5	.7	2.0	22
JUN 25...	0715	260	46	7.0	12.0	13.5	17	0	5.2	1.0	2.0	19

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
NOV 14...	.3	1.2	19	--	2.6	.7	--	17	--	44	.06	5.70
MAY 22...	.2	1.0	16	3.7	2.3	1.0	.1	14	39	38	.05	26.3
JUN 25...	.2	1.0	21	--	.9	.4	.1	17	--	40	.05	28.1

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)
NOV 14...	--	.04	--	--	--	--	--	--
MAY 22...	.05	.06	.010	.040	.01	.05	1.9	1.8
JUN 25...	--	.02	--	--	--	--	--	--

DATE	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS PO4)
NOV 14...	--	--	--	--	--	.020	--	.06
MAY 22...	1.9	.10	1.8	2.0	8.6	.060	.020	.18
JUN 25...	--	--	--	--	--	.020	--	.06

SUSPENDED-SEDIMENT DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
MAY 22...	250	79	53

12414900 ST. MARIES RIVER NEAR SANTA, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, SUSPENDED RECOV. (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, TOTAL (UG/L AS SB)	ANTIMONY, SUSPENDED TOTAL (UG/L AS SB)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA)
NOV 14...	--	--	--	--	--	--	--	--	--	--	--
MAY 22...	200	200	<100	0	0	0	2	1	1	<100	0

DATE	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	BORON, SUSPENDED RECOVERABLE (UG/L AS B)	BORON, DISSOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)
NOV 14...	--	--	--	--	--	--	--	--	--	--	--
MAY 22...	*20	<1	<100	20	<100	0	*<1	0	0	0	<5

DATE	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	LITHIUM SUSPENDED RECOVERABLE (UG/L AS LI)	LITHIUM DISSOLVED (UG/L AS LI)
NOV 14...	--	--	--	--	--	--	--	--	--	--	--
MAY 22...	*<5	<10	*<10	730	640	90	10	*<10	<10	0	*<10

DATE	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)
NOV 14...	1	--	--	--	--	--	--	--	--	--	--
MAY 22...	<50	20	*8	<1.0	.0	.0	<10	<10	4	<10	0

DATE	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
NOV 14...	--	--	--	--	--	--	--	--	--	--
MAY 22...	0	0	0	0	0	20	<6.0	120	120	*5

*The inductively coupled plasma atomic-emission spectroscopy analytical method was used.

12415500 COEUR D'ALENE LAKE AT COEUR D'ALENE, ID

LOCATION.--Lat 47°39'55", long 116°46'05", in NW¼SE¼ sec.24, T.50 N., R.4 W., Kootenai County, Hydrologic Unit 17010303, 500 ft (152 m) southwest of south end of Eleventh Street, Coeur d'Alene, and 113.1 mi (182 km) upstream from mouth of Spokane River.

DRAINAGE AREA.--3,700 mi² (9,580 km²), approximately.

PERIOD OF RECORD.--April 1903 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,100.00 ft (640.080 m), referred to originally accepted elevation of 2,157.40 ft (657.575 m) of Geological Survey bench mark in southeast corner of Idaho First National Bank Building (see WSP 882). Gage heights reduced to elevations to that datum. Datum of gage is 2,097.00 ft (639.166 m) National Geodetic Vertical Datum of 1929. Apr. 26, 1903, to Feb. 14, 1905, nonrecording gage at mouth of St. Joe River at datum about 18.7 ft (5.70 m) higher than gage datum. Feb. 15, 1905, to Mar. 23, 1921, nonrecording gage and Mar. 24, 1921, to Dec. 22, 1930, water-stage recorder, at Johnson Wharf 800 ft (244 m) southeast of railroad station and 1 mi (1.6 km) northwest of present site at datum 19.75 ft (6 m) higher than gage datum. Dec. 23, 1930, to Feb. 9, 1931, nonrecording gage at present site and datum.

REMARKS.--The Washington Water Power Co. stores water in Coeur d'Alene Lake by regulation at Post Falls Dam for power generation at Post Falls and other plants on Spokane River. Storage is within natural range of lake stage. Contents given herein are those above elevation 2,120.0 ft (646.18 m). Capacity of lake between elevations 2,120 (646.2) and 2,140 ft (652.3 m), 889,000 acre-ft (1,100 hm³).

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 834,900 acre-ft (1,029 hm³) Dec. 25, 1933, elevation, 2,139.05 ft (651.982 m); minimum, 2,700 acre-ft (3.3 hm³) below zero of contents table Oct. 10-12, 1904, Sept. 24, 25, 1905, Oct. 14 to Nov. 3, 1906, Feb. 9, 10, 1977, elevation, 2,119.9 ft (646.15 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum contents known prior to 1903, 753,300 acre-ft (928.8 hm³) May 31, 1894, elevation, 2,137.6 ft (651.54 m), from high-water marks.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 286,600 acre-ft (353 hm³) May 1, elevation, 2,128.97 ft (648.910 m); minimum, 51,500 acre-ft (63.5 hm³) Feb. 17, 18, elevation, 2,121.92 ft (646.761 m).

Capacity table (elevation, in feet, and contents, in acre-feet)

2,120.0	21,400	2,126.0	162,900
2,121.0	26,800	2,128.0	238,500
2,122.0	53,700	2,130.0	339,700
2,124.0	107,900	2,133.0	500,000

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.97	24.68	23.00	23.66	22.38	23.99	23.69	28.97	28.15	27.94	27.90	27.46
2	25.91	24.61	23.03	23.61	22.35	24.21	23.66	28.91	27.99	27.97	27.93	27.48
3	25.85	24.54	23.09	23.53	22.35	24.37	23.63	28.81	27.82	27.99	27.93	27.47
4	25.80	24.49	23.17	23.47	22.36	24.54	23.59	28.73	27.64	27.97	27.92	27.45
5	25.74	24.42	23.28	23.42	22.35	24.66	23.56	28.63	27.51	27.96	27.93	27.41
6	25.69	24.36	23.31	23.32	22.35	24.71	23.56	28.56	27.78	27.93	27.94	27.37
7	25.64	24.31	23.32	23.20	22.33	24.72	23.62	28.51	27.93	27.90	27.93	27.34
8	25.56	24.24	23.33	23.08	22.30	24.69	23.63	28.41	28.02	27.91	27.93	27.27
9	25.52	24.18	23.36	22.96	22.28	24.62	23.66	28.29	28.04	27.94	27.95	27.22
10	25.49	24.11	23.36	22.84	22.24	24.55	23.75	28.10	28.01	27.93	27.98	27.17
11	25.44	24.04	23.47	22.74	22.21	24.61	23.82	27.93	27.98	27.94	27.98	27.15
12	25.38	23.97	23.41	22.68	22.16	24.61	23.89	27.71	28.02	27.95	27.97	27.12
13	25.33	23.89	23.47	22.69	22.09	24.56	23.96	27.49	28.04	27.95	27.99	27.07
14	25.31	23.82	23.43	22.99	22.05	24.60	24.06	27.27	28.02	27.92	28.02	27.02
15	25.27	23.76	23.48	23.44	22.00	24.61	24.32	27.07	28.07	27.90	28.02	27.02
16	25.24	23.72	23.59	23.74	21.95	24.54	24.72	26.92	28.06	27.89	27.99	26.98
17	25.19	23.72	23.68	23.87	21.92	24.52	25.11	26.77	28.00	27.91	27.96	26.93
18	25.17	23.69	23.77	23.91	21.99	24.53	25.44	26.65	27.89	27.90	28.04	26.89
19	25.16	23.65	23.90	23.88	22.08	24.46	25.86	26.54	27.84	27.90	27.98	26.83
20	25.13	23.60	24.01	23.82	22.33	24.39	26.29	26.59	27.88	27.90	27.96	26.80
21	25.09	23.54	24.10	23.74	22.61	24.31	26.77	26.88	27.91	27.93	27.94	26.77
22	25.06	23.50	24.14	23.65	22.80	24.26	27.22	27.17	27.92	27.96	27.88	26.75
23	25.01	23.46	24.17	23.58	22.94	24.15	27.62	27.41	27.86	28.00	27.85	26.71
24	24.98	23.43	24.19	23.46	22.99	24.14	27.94	27.58	27.86	27.99	27.80	26.68
25	24.97	23.37	24.16	23.33	23.03	24.06	28.18	27.76	27.90	27.96	27.75	26.63
26	24.96	23.32	24.11	23.18	23.07	23.99	28.39	28.14	27.97	27.94	27.75	26.58
27	24.94	23.25	24.04	23.02	23.15	23.94	28.47	28.35	27.95	27.94	27.72	26.53
28	24.89	23.18	23.97	22.87	23.37	23.87	28.56	28.49	27.93	27.93	27.68	26.52
29	24.84	23.11	23.88	22.73	23.67	23.80	28.72	28.48	27.90	27.93	27.62	26.45
30	24.77	23.03	23.79	22.58	---	23.75	28.89	28.40	27.91	27.90	27.56	26.40
31	24.72	---	23.72	22.45	---	23.73	---	28.27	---	27.88	27.51	---
MEAN	25.29	23.83	23.64	23.27	22.47	24.34	25.49	27.86	27.93	27.93	27.88	26.98
MAX	25.97	24.68	24.19	23.91	23.67	24.72	28.89	28.97	28.15	28.00	28.04	27.48
MIN	24.72	23.03	23.00	22.45	21.92	23.73	23.56	26.54	27.51	27.88	27.51	26.40
(†)	127600	81500	100200	65800	98900	100500	282500	251500	234200	232800	215800	174800
(‡)	-35900	-46100	+18700	-34400	+33100	+1600	+182000	-31000	-17300	-1400	-17000	-41000

CAL YR 1979	MEAN	25.74	MAX	32.96	MIN	20.81	‡	+33800
WTR YR 1980	MEAN	25.59	MAX	28.97	MIN	21.92	‡	+11300

† Contents, in acre-feet, at end of month.
‡ Change in contents, in acre-feet.

NOTE.--Add 2100 ft to obtain elevations.

12416000 HAYDEN CREEK BELOW NORTH FORK, NEAR HAYDEN LAKE, ID
(Hydrologic bench-mark station)

LOCATION.--Lat 47°49'22", long 116°39'10", in NW¼NW¼SW¼ sec.25, T.52 N., R.3 W., Kootenai County, Hydrologic Unit 17010305, Coeur d'Alene National Forest, on right bank 0.3 mi (0.5 km) downstream from confluence of East Fork and North Fork, and 7.5 mi (12.1 km) northeast of Hayden Lake Post Office.
DRAINAGE AREA.--22.0 mi² (570.0 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1948 to December 1953, October 1958 to September 1959, September 1961 to September 1965 (annual maximum), October 1965 to current year.
GAGE.--Water-stage recorder. Altitude of gage is 2,370 ft (722 m), from topographic map. April 22, 1948, to Nov. 1, 1948, nonrecording gage and Nov. 2, 1948, to June 26, 1951, water-stage recorder at site 200 ft (61 m) downstream at datum 0.98 ft (0.30 m) lower. June 27, 1951, to Dec. 4, 1953, Oct. 1, 1958, to Sept. 30, 1959, water-stage recorder, Sept. 16, 1961, to Sept. 30, 1965, crest-stage gage, at datum 0.41 ft (0.12 m) higher.
REMARKS.--Records good except those for winter periods, which are fair.
AVERAGE DISCHARGE.--21 years (1949-53, 1959, 1966-80), 28.3 ft³/s (0.801 m³/s), 17.47 in/yr (444 mm/yr), 20,500 acre-ft/yr (25.3 hm³/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 790 ft³/s (22.4 m³/s) Dec. 23, 1964, gage height, 4.56 ft (1.390 m), present site and datum, from rating curve extended above 270 ft³/s (7.65 m³/s) on basis of slope-area measurement; maximum gage height, 4.93 ft (1.503 m) Feb. 11, 1951 (ice jam), site and datum then in use; minimum discharge recorded, 1.7 ft³/s (0.048 m³/s) Aug. 19-20, 1977, gage height, 2.25 ft (0.686 m); minimum gage height, 2.19 ft (0.668 m) Dec. 12, 1972.
EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 200 ft³/s (5.66 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 27	0700	*121	3.43	3.25	0.991						

Minimum discharge, 2.0 ft³/s (0.057 m³/s) Nov. 30, gage height, 2.20 ft (0.671 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 29 to Dec. 2, Jan. 4-12, Jan. 19 to Feb. 18, Feb. 23-29)

2.2	1.9	2.8	23.3
2.3	3.0	2.9	33.7
2.4	4.7	3.1	67.0
2.5	7.3	3.4	146
2.6	10.7	3.7	272
2.7	15.9		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.4	3.8	2.6	6.5	5.4	59	20	31	50	17	6.8	5.8
2	3.4	3.8	2.8	7.0	5.4	50	20	30	46	17	6.6	7.9
3	3.3	4.0	6.9	7.6	5.4	46	20	27	41	16	6.7	5.3
4	3.3	3.9	8.6	6.2	5.3	42	20	26	38	15	6.5	4.9
5	3.3	4.1	6.6	5.7	5.2	39	23	25	35	14	6.5	4.7
6	3.3	4.0	5.2	5.2	5.2	35	25	25	34	14	6.3	4.5
7	3.3	3.8	5.0	4.8	5.2	32	25	25	31	14	6.1	4.6
8	3.3	3.8	4.8	4.6	5.2	27	25	25	28	13	6.1	4.6
9	3.3	3.8	5.2	4.5	5.2	25	32	25	27	13	6.2	4.4
10	3.3	3.6	7.0	4.6	5.1	25	39	25	26	14	6.2	4.4
11	3.3	3.5	4.8	4.7	4.9	33	41	24	25	12	6.1	4.3
12	3.3	3.5	4.2	5.5	4.8	31	41	23	25	11	5.9	4.3
13	3.3	3.4	4.0	9.7	4.6	30	41	22	33	11	5.9	5.3
14	3.3	3.4	5.5	17	4.5	28	52	21	26	11	5.7	5.0
15	4.1	3.4	18	21	4.4	25	65	24	31	11	5.6	4.3
16	3.7	3.5	7.9	17	4.4	22	61	31	31	10	5.1	4.3
17	3.6	6.0	7.0	16	4.5	21	58	30	32	9.8	6.0	4.2
18	4.6	5.6	11	13	5.0	22	58	31	31	9.5	9.6	4.3
19	9.0	4.2	11	12	17	21	56	31	30	9.3	5.8	4.4
20	6.0	3.8	14	11	25	20	56	30	28	8.9	5.3	6.0
21	5.0	3.6	10	9.5	28	20	52	28	26	8.7	5.1	4.8
22	4.7	3.5	10	8.5	30	20	49	30	28	8.5	5.0	4.5
23	6.7	3.8	8.6	8.0	22	22	46	27	25	8.2	4.9	4.4
24	4.6	3.6	7.6	7.7	20	22	44	26	24	8.0	4.8	4.2
25	5.7	3.8	7.3	7.1	17	22	39	33	21	7.8	4.8	4.2
26	5.5	3.5	6.8	6.7	16	22	37	73	21	12	4.7	4.0
27	5.4	3.3	6.5	5.9	17	21	35	116	20	15	5.0	4.0
28	5.0	2.6	6.3	5.4	20	20	35	99	20	7.0	5.4	3.9
29	4.5	2.4	6.0	5.1	25	20	37	76	19	6.9	4.9	3.8
30	4.1	2.5	5.7	5.2	---	20	34	63	18	6.7	4.7	3.7
31	4.0	---	5.7	5.4	---	20	---	54	---	6.6	5.3	---
TOTAL	132.6	111.5	222.6	258.1	326.7	862	1186	1156	870	345.9	179.6	139.0
MEAN	4.28	3.72	7.18	8.33	11.3	27.8	39.5	37.3	29.0	11.2	5.79	4.63
MAX	9.0	6.0	18	21	30	59	65	116	50	17	9.6	7.9
MIN	3.3	2.4	2.6	4.5	4.4	20	20	21	18	6.6	4.7	3.7
CFSM	.20	.17	.33	.38	.51	1.26	1.80	1.70	1.32	.51	.26	.21
IN.	.22	.19	.38	.44	.55	1.46	2.01	1.95	1.47	.58	.30	.24
AC-FT	263	221	442	512	648	1710	2350	2290	1730	686	356	276

CAL YR 1979 TOTAL 8367.7 MEAN 22.9 MAX 202 MIN 2.4 CFSM 1.04 IN 14.15 AC-FT 16600
WTR YR 1980 TOTAL 5790.0 MEAN 15.8 MAX 116 MIN 2.4 CFSM .72 IN 9.79 AC-FT 11480

12416000 HAYDEN CREEK BELOW NORTH FORK, NEAR HAYDEN LAKE, ID--Continued
(Hydrologic bench-mark station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.
REMARKS.--May 20, 22, 30, June 4, 12, 17, 27, and July 15, samples taken after Mt. St. Helens May 18, 1980, eruption and ashfall.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)
NOV										
01...	1010	3.8	69	7.9	3.0	4.0	9.2	110	<1	K1
DEC										
06...	1150	5.2	71	--	4.0	3.5	--	--	--	--
JAN										
31...	1015	5.5	78	6.3	E-6.0	.5	13.8	101	K3	K2
MAR										
25...	1100	22	61	7.0	6.0	3.0	13.2	106	49	<1
MAY										
20...	1130	29	60	6.9	22.0	10.5	10.0	96	K34	K6
20...	1131	29	60	6.9	22.0	10.5	10.0	96	K34	K6
22...	1120	30	64	8.0	--	--	--	--	--	--
30...	1315	54	50	7.1	13.5	9.0	--	--	--	--
JUN										
04...	0830	34	49	6.8	8.5	6.5	--	--	--	--
12...	0915	22	62	6.5	14.5	10.0	--	--	--	--
17...	0930	32	59	7.4	14.0	11.0	11.2	110	60	45
27...	1100	16	66	7.2	11.5	9.0	--	--	--	--
JUL										
15...	0930	11	74	7.3	17.0	11.0	10.4	102	38	33
SEP										
16...	1000	4.4	84	7.2	14.5	10.0	10.2	98	500	--

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)
NOV										
01...	40	37	6	10	3.0	1.5	11	.1	.6	31
DEC										
06...	--	--	--	--	--	--	--	--	--	--
JAN										
31...	67	41	7	11	3.4	1.1	5	.1	.5	34
MAR										
25...	270	29	10	7.5	2.6	1.4	9	.1	.5	19
MAY										
20...	K7	27	4	7.0	2.2	1.4	10	.1	.6	23
20...	K7	18	2	4.1	1.8	1.2	13	.1	.4	16
22...	--	25	0	6.5	2.1	1.2	9	.1	.5	26
30...	--	23	3	5.9	2.0	1.1	9	.1	.5	20
JUN										
04...	--	24	3	6.5	2.0	1.3	10	.1	.5	22
12...	--	28	0	7.5	2.3	1.3	9	.1	.5	35
17...	K5	28	2	7.4	2.4	1.3	9	.1	.7	26
27...	--	29	0	7.6	2.4	1.4	9	.1	.6	30
JUL										
15...	K220	33	0	8.6	2.8	1.5	9	.1	.6	35
SEP										
16...	120	37	6	10	3.0	1.6	8	.1	1.0	31

E Estimated value.

K Results based on counts outside ideal colony count range.

12416000 HAYDEN CREEK BELOW NORTH FORK, NEAR HAYDEN LAKE, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
NOV 01...	3.8	.6	.1	11	41	49	.06	.42	.06	.000
JAN 31...	3.8	.5	.1	12	56	54	.08	.83	.18	.010
MAR 25...	4.6	.4	.0	13	52	--	.07	3.13	.01	.010
MAY 20...	6.0	.2	.1	12	48	38	.07	3.76	.05	.020
20...	1.0	.3	.0	8.9	29	27	.04	2.27	.00	.010
22...	.8	.3	.0	12	45	39	.06	3.65	.01	.010
30...	4.7	.6	.1	13	37	40	.05	5.41	.03	.070
JUN 04...	1.0	1.0	.0	13	43	39	.06	3.95	.07	.010
12...	1.2	1.3	.0	13	46	48	.06	2.79	.01	.010
17...	.4	.3	.1	13	53	41	.07	4.54	.02	.010
27...	.2	.5	.1	13	47	44	.06	2.09	.01	.010
JUL 15...	.9	.5	.5	13	51	50	.07	1.51	.00	.010
SEP 16...	.6	.5	.1	13	46	46	.06	.55	.17	.030

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	CYANIDE TOTAL (MG/L AS CN)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
MAR 25...	3	100	0	20	2	.00	60
MAY 20...	--	*<100	--	--	*<10	--	--
20...	1	0	1	0	5	--	190
22...	1	*<100	*0	0	*<10	--	140
30...	1	*<100	*1	0	*<10	--	160
JUN 04...	1	*<100	*0	0	*<10	--	70
12...	1	*<100	*0	0	*<10	--	80
17...	1	*<100	*1	0	*<10	--	120
27...	1	*<100	*0	0	*<10	--	90
JUL 15...	1	* 100	*0	0	*<10	--	100
SEP 16...	1	100	0	10	4	.00	60

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	SELE-NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
MAR 25...	2	0	.1	0	1	10
MAY 20...	*<5	*<50	<1.0	--	--	*<50
20...	2	10	.0	0	0	20
22...	*<5	*<50	<1.0	0	0	* 60
30...	*<5	*<50	<1.0	0	0	*<50
JUN 04...	*<5	*<50	<1.0	0	0	*<50
12...	*10	*<50	<1.0	0	0	*<50
17...	*<5	*<50	<1.0	0	0	* 70
27...	--	*<50	<1.0	0	0	*<50
JUL 15...	--	*<50	<1.0	0	0	*<50
SEP 16...	3	0	.0	0	0	50

*The inductively coupled plasma atomic-emission spectroscopy analytical method was used.

12416000 HAYDEN CREEK BELOW NORTH FORK, NEAR HAYDEN LAKE, ID--Continued

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	PCB TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL (UG/L)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL (UG/L)
SEP 16...	1000	.00	0	.00	.0	.0	0	.00	.0	.00	.0	.00

DATE	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DI-AZINON, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	DI-ELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)
SEP 16...	.0	.00	.00	.0	.00	.0	.00	.00	.0	.00	.0	.00

DATE	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALA-THION, TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	METHYL PARA-THION, TOTAL (UG/L)	METHYL TRI-THION, TOTAL (UG/L)	PARA-THION, TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	TOXA-PHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOTAL TRI-THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
SEP 16...	.0	.00	.00	.00	.00	.00	0	0	.00	.00	.00	.00

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)	URANIUM DIS-SOLVED, EXTRAC-TION (UG/L)
SEP 16...	1000	<.6	<.4	.9	<.4	.9	<.4	.05	.19

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
NOV 01...	1	.01
MAR 25...	1	.06
MAY 20...	9	.70
22...	18	1.5
30...	6	.88
JUN 04...	5	.46
12...	2	.12
17...	2	.17
27...	9	.40
JUL 15...	3	.09
SEP 16...	1	.01

12417000 HAYDEN LAKE AT HAYDEN LAKE, ID

LOCATION.--Lat 47°46'02", long 116°45'12", in SE¼SE¼NW¼ sec.18, T.51 N., R.3 W., Kootenai County, Hydrologic Unit 17010305, at Avondale pumping plant, 1.6 mi (2.6 km) northeast of Hayden Lake Post Office.

DRAINAGE AREA.--62.3 mi² (161 km²).

PERIOD OF RECORD.--May 1920 to current year.

GAGE.--Nonrecording gage read once daily. Datum of gage is 2,200.21 ft (670.624 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1925, at datum 30.35 ft (9.251 m) higher. Oct. 1, 1925, to Mar. 26, 1931, at datum 21.60 ft (6.584 m) higher.

REMARKS.--Water is pumped from lake for irrigation and domestic supply. Lake has no natural surface outlet. Some surface flow leaves the lake during high stages (most years) through a controlled outlet in the dike at the southeast corner. Due to the permeability of the lakebed and outlet area, the excess flow leaves the area by infiltration to the ground water of Rathdrum Prairie.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height observed, 42.46 ft (12.942 m) Apr. 22, 1956; minimum observed, 19.38 ft (5.907 m) Dec. 16, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum gage height observed, 35.00 ft (10.688 m) June 22-24; minimum observed, 31.97 ft (9.744 m) Dec. 14.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32.92	32.42	32.00	32.00	32.05	32.46	33.14	33.85	34.70	34.90	33.96	32.88
2	32.90	32.40	32.04	32.01	32.04	32.50	33.14	33.86	34.76	34.88	33.90	32.87
3	32.86	32.38	32.06	32.02	32.08	32.58	33.13	33.88	34.76	34.84	33.86	32.86
4	32.84	32.37	32.06	32.03	32.10	32.64	33.12	33.88	34.78	34.82	33.82	32.84
5	32.82	32.36	32.05	32.07	32.11	32.66	33.12	33.88	34.80	34.80	33.76	32.82
6	32.80	32.34	32.04	32.05	32.12	32.68	33.14	33.88	34.81	34.79	33.72	32.80
7	32.75	32.32	32.03	32.04	32.12	32.70	33.16	33.90	34.82	34.74	33.70	32.78
8	32.72	32.30	32.02	32.03	32.12	32.72	33.18	33.90	34.82	34.72	33.66	32.76
9	32.70	32.29	32.01	32.02	32.12	32.73	33.22	33.92	34.82	34.70	33.62	32.74
10	32.68	32.28	32.00	32.02	32.11	32.74	33.24	33.94	34.82	34.70	33.59	32.72
11	32.66	32.26	32.00	32.00	32.10	32.82	33.27	33.94	34.81	34.68	33.56	32.70
12	32.64	32.23	31.99	32.02	32.09	32.86	33.30	33.92	34.80	34.66	33.50	32.68
13	32.62	32.20	31.98	32.04	32.08	32.88	33.33	33.94	34.86	34.64	33.46	32.66
14	32.60	32.18	31.97	32.09	32.08	32.90	33.36	33.96	34.90	34.64	33.44	32.65
15	32.58	32.18	31.98	32.14	32.07	32.92	33.40	34.00	34.92	34.62	33.40	32.64
16	32.56	32.19	31.98	32.15	32.06	32.94	33.44	34.04	34.94	34.60	33.36	32.62
17	32.55	32.19	31.98	32.18	32.07	32.96	33.48	34.06	34.95	34.56	33.34	32.58
18	32.54	32.18	32.00	32.19	32.08	32.98	33.52	34.07	34.96	34.52	33.32	32.54
19	32.55	32.16	32.02	32.20	32.10	33.00	33.56	34.09	34.96	34.50	33.30	32.52
20	32.56	32.14	32.04	32.19	32.14	33.02	33.60	34.10	34.96	34.46	33.28	32.50
21	32.55	32.13	32.05	32.18	32.16	33.04	33.62	34.08	34.96	34.42	33.26	32.49
22	32.54	32.11	32.06	32.17	32.18	33.05	33.64	34.10	35.00	34.38	33.22	32.48
23	32.54	32.10	32.06	32.16	32.20	33.06	33.68	34.09	35.00	34.36	33.20	32.46
24	32.52	32.09	32.07	32.14	32.20	33.05	33.70	34.08	35.00	34.32	33.14	32.44
25	32.52	32.08	32.07	32.13	32.20	33.06	33.72	34.16	34.99	34.30	33.10	32.42
26	32.52	32.06	32.08	32.12	32.22	33.07	33.74	34.26	34.98	34.26	33.06	32.40
27	32.51	32.04	32.07	32.11	32.28	33.08	33.75	34.36	34.96	34.22	33.02	32.38
28	32.50	32.03	32.05	32.10	32.34	33.09	33.76	34.46	34.94	34.18	32.98	32.36
29	32.48	32.02	32.04	32.05	32.40	33.10	33.79	34.54	34.92	34.12	32.94	32.34
30	32.46	32.01	32.02	32.07	---	33.12	33.82	34.62	34.90	34.08	32.92	32.30
31	32.44	---	32.00	32.06	---	33.14	---	34.66	---	34.02	32.90	---
MAX	32.92	32.42	32.08	32.20	32.40	33.14	33.82	34.66	35.00	34.90	33.96	32.88
MIN	32.44	32.01	31.97	32.00	32.04	32.46	33.12	33.85	34.70	34.02	32.90	32.30

WTR YR 1980 MAX 35.00 MIN 31.97

12418000 RATHDRUM PRAIRIE CANAL AT HUETTER, ID

LOCATION.--Lat 47°42'35", long 116°52'05", in SE¼NE¼ sec.6, T.50 N., R.4 W., Kootenai County, Hydrologic Unit 17010305, on left bank 171 ft (52 m) downstream from outlet of discharge pipe, 0.6 mi (1.0 m) north of pumping plant, and 0.8 mi (1.2 km) northwest of Huetter.

PERIOD OF RECORD.--October 1945 to current year. Monthly discharge only for October 1945 to March 1946, published in WSP 1316.

GAGE.--Water-stage recorder. Datum of gage is 2,272.02 ft (692.512 m) National Geodetic Vertical Datum of 1929 (levels by Water and Power Resources Service). Prior to Oct. 5, 1967, water-stage recorder at site 365 ft (111 m) upstream at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good. Canal carries water which is pumped from Spokane River in sec.7, T.50 N., R.4 W., for irrigation of first unit of Rathdrum Prairie project about 3,000 acres (1,210 hm²).

EXTREMES.--Period of record: Maximum daily discharge, 66 ft³/s (1.87 m³/s) June 29 to July 2, 1947; no flow for long periods in each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	3.5	.00	37	43	21
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	41	44	29
3	.00	.00	.00	.00	.00	.00	.00	9.1	.00	41	44	28
4	.00	.00	.00	.00	.00	.00	.00	14	.00	41	45	27
5	.00	.00	.00	.00	.00	.00	.00	17	16	41	45	27
6	.00	.00	.00	.00	.00	.00	.00	18	22	41	46	27
7	.00	.00	.00	.00	.00	.00	.00	18	19	43	46	26
8	.00	.00	.00	.00	.00	.00	.00	18	21	44	47	26
9	.00	.00	.00	.00	.00	.00	.00	18	24	46	47	25
10	.00	.00	.00	.00	.00	.00	.00	18	24	48	47	25
11	.00	.00	.00	.00	.00	.00	.00	18	25	48	47	25
12	.00	.00	.00	.00	.00	.00	.00	19	26	48	48	25
13	.00	.00	.00	.00	.00	.00	.00	19	26	48	48	25
14	.00	.00	.00	.00	.00	.00	.00	13	26	48	48	25
15	.00	.00	.00	.00	.00	.00	.00	.00	26	48	49	8.1
16	.00	.00	.00	.00	.00	.00	.00	.00	26	48	51	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	26	47	51	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	27	46	50	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	29	46	50	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	31	45	50	.00
21	.00	.00	.00	.00	.00	.00	.00	6.8	32	45	50	.00
22	.00	.00	.00	.00	.00	.00	.00	21	30	39	49	.00
23	.00	.00	.00	.00	.00	.00	.00	24	28	20	48	.00
24	.00	.00	.00	.00	.00	.00	.00	24	27	35	48	.00
25	.00	.00	.00	.00	.00	.00	.00	24	27	42	48	.00
26	.00	.00	.00	.00	.00	.00	.00	24	27	43	47	.00
27	.00	.00	.00	.00	.00	.00	.00	23	27	43	45	.00
28	.00	.00	.00	.00	.00	.00	.00	23	28	42	42	.00
29	.00	.00	.00	.00	.00	.00	.00	17	29	42	42	.00
30	.00	.00	.00	.00	---	.00	2.4	.00	29	43	41	.00
31	.00	---	.00	.00	---	.00	---	.00	---	43	28	---
TOTAL	.00	.00	.00	.00	.00	.00	2.40	389.40	678.00	1332	1434	369.10
MEAN	.000	.000	.000	.000	.000	.000	.080	12.6	22.6	43.0	46.3	12.3
MAX	.00	.00	.00	.00	.00	.00	2.4	24	32	48	51	29
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	20	28	.00
AC-FT	.00	.00	.00	.00	.00	.00	4.8	772	1340	2640	2840	732

CAL YR 1979	TOTAL	4705.30	MEAN 12.9	MAX 46	MIN .00	AC-FT 9330
WTR YR 1980	TOTAL	4204.90	MEAN 11.5	MAX 51	MIN .00	AC-FT 8340

12419000 SPOKANE RIVER NEAR POST FALLS, ID

LOCATION.--Lat 47°42'10", long 116°58'40", in SW¼SW¼ sec.4, T.50 N., R.5 W., Kootenai County, Hydrologic Unit 17010305, on right bank 1 mi (1.6 km) downstream from powerplant of Washington Water Power Co., 1.5 mi (2.4 km) southwest of Post Falls, and at mile 100.7 (162 km).

DRAINAGE AREA.--3,840 mi² (9,946 km²), approximately, of which about 122 mi² (316 km²) in the vicinity of Hayden Lake is noncontributing to this station.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1912 to current year (prior to January 1913 monthly discharge only, published in WSP 870 and 1736). Prior to October 1949, published as "at Post Falls".

GAGE.--Water-stage recorder. Datum of gage is 2,050 ft (624.840 m) referred to originally accepted elevation of 2,157.40 ft (657.575 m) for the Geological Survey bench mark in southeast corner of Idaho First National Bank Building (see WSP 882). National Geodetic Vertical Datum of 1929 is at 2,047.00 ft (623.92 m) gage datum. Jan. 1, 1913, to Nov. 21, 1920, nonrecording gage and Nov. 22, 1920, to Sept. 15, 1934, recording gage 0.6 mi (1.0 km) upstream. From Sept. 16, 1934, to Nov. 15, 1949, recording gage 0.8 mi (1.3 km) upstream. From Nov. 16, 1949, at present site. Datum of all gages prior to Sept. 30, 1964, 50 ft (15.2 m) lower.

REMARKS.--Records good. Rathdrum Prairie Canal (see sta 12418000) diverts water above gage for irrigation. Figures of daily discharge do not include water diverted by this canal. Flow regulated by dam at Post Falls and affected by storage in Coeur d'Alene Lake (see sta 12415500).

AVERAGE DISCHARGE.--River only, 68 years, 6,264 ft³/s (177 m³/s), 4,538,000 acre-ft/yr (5,595 hm³/yr); combined river and diversions above gage, 68 years, 6,351 ft³/s (180 m³/s), 4,601,000 acre-ft/yr (5,673 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 50,100 ft³/s (1,419 m³/s) when recorder was not operating Dec. 25, 1933 (determined from unpublished records collected by Washington Water Power Co. for station at Liberty Bridge); minimum, 65 ft³/s (1.84 m³/s) July 25, 30, 1973; minimum gage height, 4.68 ft (1.426 m) July 20, 21, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 20,900 ft³/s (592 m³/s) Apr. 25, gage height, 18.20 ft (5.547 m); minimum, 235 ft³/s (6.66 m³/s) Dec. 19, gage height, 5.40 ft (1.646 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1340	1800	1630	3100	3470	5460	4640	18100	16000	3650	761	1730
2	1330	1490	1640	3100	3160	6270	4890	18000	15700	3430	761	1750
3	1340	1790	1630	3140	3110	6460	4860	17700	15300	3650	755	1750
4	1330	1790	1640	3170	3090	6550	4840	17500	14600	3780	745	1740
5	1330	1790	1630	3190	3110	6790	4820	17300	11400	3770	752	1730
6	1330	1790	1630	3190	3120	6970	4840	17200	4890	3770	722	1750
7	1340	1790	1640	3180	3120	6860	4860	17000	6250	3500	715	1760
8	1340	1810	1640	3200	3060	7070	4860	16700	6610	2950	707	1730
9	1340	1800	1640	3200	3010	7000	4890	16300	7600	2690	696	1740
10	1340	1790	1650	3210	3010	6890	5120	15900	8380	3060	697	1750
11	1330	1800	1660	3230	2940	6890	5320	15400	8410	3280	719	1750
12	1330	1810	1660	3360	2920	6930	5460	14700	8000	2780	730	1750
13	1340	1720	1670	3430	2880	6940	5660	13900	10600	2510	729	1740
14	1330	1610	1670	2980	2780	6900	5830	13300	11800	2890	969	1740
15	1340	1590	1670	3490	2750	6930	6390	12600	12500	3130	1260	1750
16	1340	1580	1660	4280	2740	6700	7160	12200	13700	2780	1210	1760
17	1340	1590	1910	4310	2630	5540	8000	11300	13700	2270	789	1750
18	1510	1590	2090	4310	2480	5360	8800	10800	13600	1910	1750	1750
19	1780	1590	1710	4290	2700	5890	9680	9290	10500	1920	1830	1750
20	1780	1600	1590	4320	2990	5960	10500	3120	8130	1590	1340	1740
21	1780	1600	2150	4310	3280	5950	11900	3480	7600	1350	1450	1750
22	1780	1600	2220	4310	3330	6060	12900	4010	8490	1340	1870	1750
23	1780	1610	2220	4300	3800	6080	14600	4720	8380	1700	1990	1760
24	1780	1620	2630	4290	4030	5960	15700	4180	6050	1900	1610	1750
25	1780	1620	3050	4270	4070	5740	16000	4070	5100	1630	754	1760
26	1780	1620	3070	4220	4090	5580	16800	10500	5120	1460	1210	1780
27	1790	1610	3060	4090	4190	5540	17000	15800	5830	1470	1730	1760
28	1790	1620	3060	3760	4420	5470	17200	16700	5590	1460	1720	1760
29	1800	1620	3060	3620	4890	5410	17700	16800	5110	1470	1730	1760
30	1790	1630	3070	3590	---	5150	18000	16500	4290	1330	1730	1770
31	1780	---	3100	3540	---	4710	---	16400	---	951	1730	---
TOTAL	47410	50270	64350	113980	95170	192010	279220	401470	279230	75371	36161	52510
MEAN	1529	1676	2076	3677	3282	6194	9307	12950	9308	2431	1166	1750
MAX	1800	1810	3100	4320	4890	7070	18000	18100	16000	3780	1990	1780
MIN	1330	1490	1590	2980	2480	4710	4640	3120	4290	951	696	1730
AC-FT	94040	99710	127600	226100	188800	380900	553800	796300	553900	149500	71730	104200
MEAN†	1529	1676	2076	3677	3282	6194	9307	12963	9330	2474	1213	1763
AC-FT†	94040	99710	127600	226100	188800	380900	553800	797100	555200	152100	74570	104900

CAL YR 1979 TOTAL 1858249 MEAN 5091 MAX 30100 MIN 258 AC-FT 3686000 MEAN† 5104 AC-FT† 3695000
WTR YR 1980 TOTAL 1687152 MEAN 4610 MAX 18100 MIN 696 AC-FT 3346000 MEAN† 4621 AC-FT† 3355000

† Adjusted for diversion through Rathdrum Prairie Canal.

12419000 SPOKANE RIVER NEAR POST FALLS, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.
REMARKS.--May 28, June 9, and July 16, samples taken after Mt. St. Helens May 18, 1980, eruption and ashfall.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
OCT											
17...	1200	1340	58	6.7	16.0	15.0	8.8	94	K5	--	--
NOV											
15...	1300	1600	58	7.4	6.0	7.5	10.4	95	K5	50	.07
DEC											
13...	1100	1640	62	7.3	7.0	4.0	11.8	98	K1	--	--
JAN											
16...	1300	4290	63	6.9	3.0	4.0	12.3	99	<1	--	--
MAR											
20...	0915	5820	61	6.2	5.0	3.5	12.9	94	K3	--	.06
APR											
24...	0800	15300	67	6.7	11.5	7.0	13.0	116	<1	--	--
MAY											
28...	1030	17800	55	7.3	10.5	12.0	11.4	115	K4	41	.06
JUN											
09...	1300	8440	53	7.0	23.0	15.0	10.2	108	K1	--	.05
JUL											
16...	1200	2670	54	7.0	24.0	20.0	8.7	102	K5	--	--
AUG											
20...	1000	1340	56	6.7	19.5	20.0	7.6	89	K8	--	--
28...	0930	1660	62	7.2	12.5	18.0	7.9	77	K11	49	.07
SEP											
18...	0930	1760	61	7.1	14.5	17.5	8.2	95	--	49	.07

DATE	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS PO4)
OCT										
17...	--	4	.03	.51	.52	.55	2.4	.01	.010	.03
NOV										
15...	216	0	.19	.24	.26	.45	2.0	.02	.010	.03
DEC										
13...	--	0	.04	1.4	1.4	1.4	6.4	.04	.010	.03
JAN										
16...	--	3	.09	.31	.32	.41	1.8	.01	.010	.03
MAR										
20...	644	0	.06	.33	.33	.39	1.7	.00	.020	.06
APR										
24...	--	0	.02	.87	.87	.89	3.9	.00	.020	.06
MAY										
28...	1970	0	.00	.31	.31	.31	1.4	.00	.050	.15
JUN										
09...	820	5	.02	.22	.29	.31	1.4	.08	.010	.03
JUL										
16...	--	9	.00	.48	.48	.48	2.1	.00	.050	.15
AUG										
20...	--	6	.09	.67	.67	.76	3.4	.00	.030	.09
28...	220	75	.00	.51	.51	.51	2.3	.00	.020	.06
SEP										
18...	233	5	.00	.36	.36	.36	1.6	.00	.040	.12

K Results based on counts outside ideal colony count range.

12419000 SPOKANE RIVER NEAR POST FALLS, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
OCT								
17...	1	1	3	1	50	1	.1	70
NOV								
15...	1	1	0	4	110	6	.0	140
DEC								
13...	1	2	2	2	50	6	.0	160
JAN								
16...	1	1	--	1	40	10	.1	160
MAR								
20...	0	1	8	6	110	15	.0	180
APR								
24...	2	2	3	4	280	10	.2	260
MAY								
28...	1	1	0	13	140	5	<1.0	200
JUN								
09...	1	1	2	13	100	11	<1.0	130
JUL								
16...	1	1	4	<10	100	7	<1.0	130
AUG								
20...	1	1	0	32	120	10	.1	170
28...	1	1	11	8	70	6	.1	120
SEP								
18...	1	1	5	12	160	5	.0	180

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	GROSS ALPHA, DIS-SOLVED (PCI/L AS U-NAT)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)
NOV							
15...	--	<.4	--	1.0	.9	.6	.6
DEC							
13...	--	<.5	--	--	.9	<.4	--
MAR							
20...	<.3	<.5	<.3	.8	.8	<.4	<.4
APR							
24...	<.3	<.4	<.3	1.0	1.0	<.4	<.4
MAY							
28...	<.4	<.6	.3	.9	.9	.5	.6
JUN							
09...	.7	1.0	<.3	.9	.9	<.4	<.4
JUL							
16...	<.4	<.6	<.3	.9	.9	<.4	<.4
AUG							
20...	<.4	<.6	<.3	.8	.8	<.4	<.4
28...	<.4	<.6	<.3	.8	.8	<.4	<.4
SEP							
18...	<.3	<.4	<.3	1.1	1.1	<.4	<.4

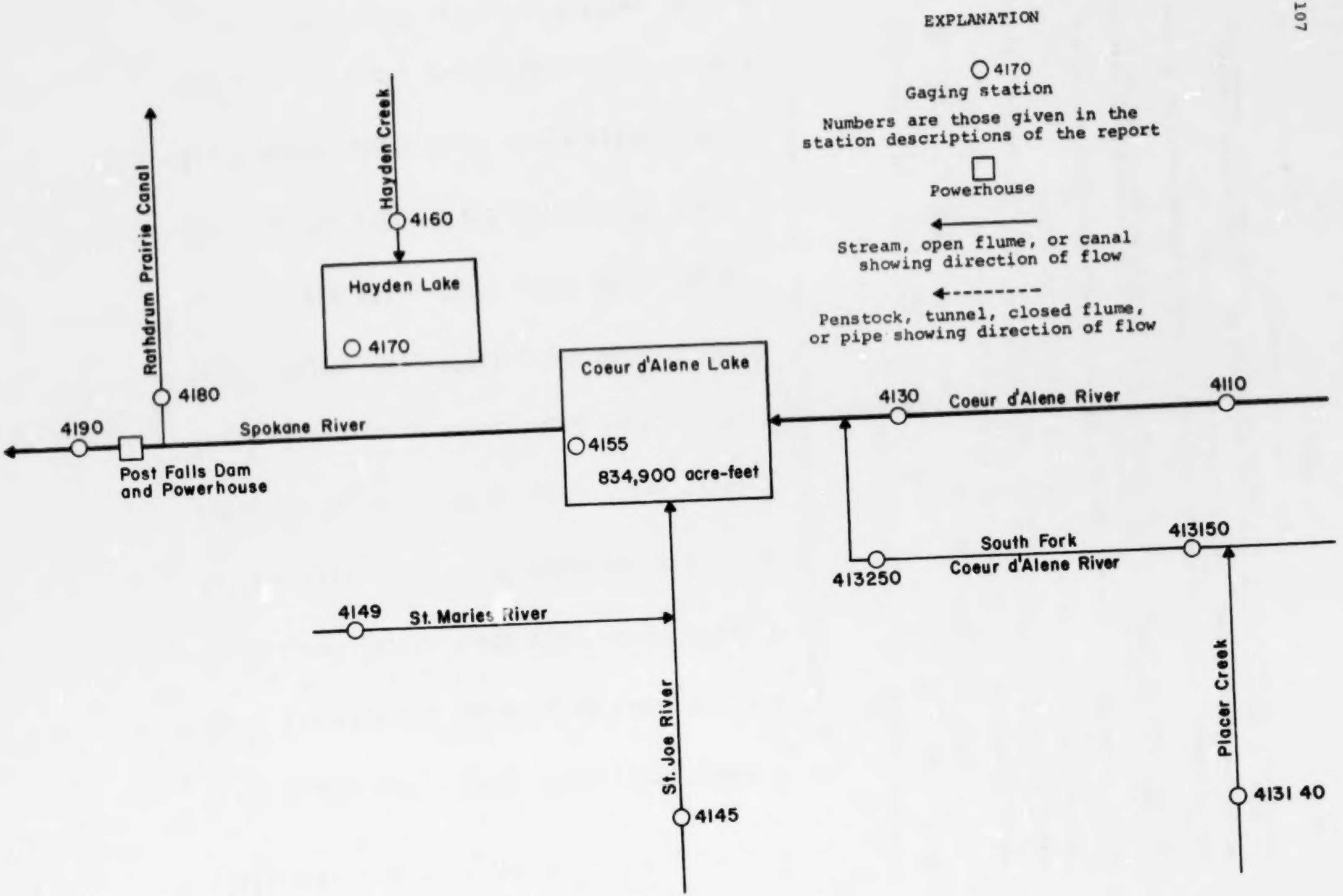

FIGURE 12.--Gaging stations in Spokane River basin.

13161500 BRUNEAU RIVER AT ROWLAND, NV

LOCATION.--Lat 41°56'00", long 115°40'25", in NW¼SE¼ sec.29, T.47 N., R.56 E., Elko County, Hydrologic Unit 17050102, on left bank 2 mi (3 km) upstream from McDonald Creek and 0.5 mi (0.8 km) south of Rowland.

DRAINAGE AREA.--382 mi² (989 km²). Area at crest-stage site, 380 mi² (984 km²).

PERIOD OF RECORD.--June 1913 to September 1918, water years 1962-66 (annual maximum), October 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,500 ft (1,372 m), from topographic map. June 1913 to September 1918, nonrecording gage at different site and datum. October 1961 to September 1966, crest-stage gage at site 3 mi (5 km) upstream at different datum.

REMARKS.--Records good except those for winter months which are fair. Minor diversions for irrigation above station.

AVERAGE DISCHARGE.--19 years, 119 ft³/s (3.370 m³/s), 86,220 acre-ft/yr (106 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,120 ft³/s (60.0 m³/s) Feb. 11, 1962, gage height, 13.0 ft (3.96 m), site and datum then in use; minimum, 5 ft³/s (0.14 m³/s) Aug. 12, 13, 1918.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft³/s (5.66 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 13	2300	240	6.80	4.19	1.277	Feb. 29	2400	217	6.15	4.07	1.241
Feb. 20	0200	603	17.1	5.76	1.756	Apr. 21	1000	*832	23.6	6.47	1.972

Minimum discharge, 9.7 ft³/s (0.27 m³/s) Jan. 7, Sept. 5-7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	27	35	24	33	162	103	529	296	133	24	14
2	11	25	42	24	33	158	101	517	376	136	24	13
3	11	27	38	24	33	144	104	532	380	127	23	13
4	11	27	32	24	34	142	109	546	416	121	22	13
5	11	30	31	25	35	139	132	516	421	112	21	11
6	11	32	30	24	36	123	132	571	388	106	18	9.7
7	11	29	31	26	37	118	126	534	354	99	17	9.8
8	11	27	30	30	38	110	127	510	331	88	16	10
9	11	26	30	27	39	99	146	503	317	86	15	10
10	11	24	26	27	42	103	173	454	323	82	14	10
11	12	24	21	26	45	110	167	433	331	76	14	12
12	12	22	23	67	43	102	185	430	332	71	13	12
13	11	22	25	120	44	101	238	373	318	65	12	12
14	11	23	24	200	45	100	304	344	298	65	12	17
15	12	23	24	182	59	111	360	342	277	63	12	23
16	12	23	25	154	62	97	407	326	252	60	12	22
17	12	23	25	156	77	94	496	313	239	57	12	20
18	15	23	26	109	134	105	618	299	238	55	12	19
19	28	22	27	88	306	99	670	288	244	52	14	18
20	57	22	25	69	420	92	763	291	233	48	16	18
21	47	24	25	80	215	98	774	308	230	45	15	19
22	38	25	24	70	169	96	728	332	221	42	14	20
23	34	25	24	63	139	97	754	363	209	38	13	20
24	32	25	23	67	118	97	751	370	195	35	13	20
25	31	25	24	62	113	93	679	335	183	33	12	19
26	31	24	24	50	112	91	591	313	171	31	13	19
27	30	23	27	56	122	97	614	295	159	29	13	19
28	27	22	24	40	144	89	639	284	151	28	12	18
29	27	25	23	38	167	93	628	270	143	27	12	18
30	27	29	23	35	---	103	574	260	135	27	12	18
31	26	---	24	33	---	92	---	281	---	25	13	---
TOTAL	643	748	835	2020	2894	3355	12193	12062	8161	2062	465	476.5
MEAN	20.7	24.9	26.9	65.2	99.8	108	406	389	272	66.5	15.0	15.9
MAX	57	32	42	200	420	162	774	571	421	136	24	23
MIN	11	22	21	24	33	89	101	260	135	25	12	9.7
AC-FT	1280	1480	1660	4010	5740	6650	24180	23920	16190	4090	922	945

CAL YR 1979 TOTAL 41846.1 MEAN 115 MAX 636 MIN 7.1 AC-FT 83000
WTR YR 1980 TOTAL 45914.5 MEAN 125 MAX 774 MIN 9.7 AC-FT 91070

13168500 BRUNEAU RIVER NEAR HOT SPRING, ID

LOCATION.--Lat 42°46'16", long 115°43'10", in NE¼NE¼SE¼ sec.34, T.7 S., R.6 E., Owyhee County, Hydrologic Unit 17050102, on right bank at Dunham Ranch, 1 mi (1.6 km) downstream from Hot Creek, 1.5 mi (2.4 km) south of Hot Spring, 9 mi (14.5 km) southeast of Bruneau, 16 mi (25.7 km) downstream from East Fork, and at mile 22.0 (35.4 km).

DRAINAGE AREA.--2,630 mi² (6,810 km²), approximately. Mean altitude, 5,600 ft (1,710 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1909 to March 1915, October 1943 to current year.

REVISED RECORDS.--WSP 1063: 1913. WSP 1517: 1910(M). WSP 1567: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,598.5 ft (792.02 m) National Geodetic Vertical Datum of 1929. Prior to Mar. 12, 1910, nonrecording gage at site 0.2 mi (0.3 km) upstream at different datum. Mar. 12, 1910, to Mar. 15, 1915, nonrecording gage at present site and datum.

REMARKS.--Records excellent. Several small reservoirs on tributaries above station. Diversions above station for irrigation of about 12,900 acres (5,200 hm²), 1966 determination.

AVERAGE DISCHARGE.--42 years (1909-14, 1943-80), 395 ft³/s (11.19 m³/s), 286,200 acre-ft/yr (353 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,500 ft³/s (184 m³/s) Mar. 1, 1910, gage height, 13.0 ft (3.96 m), from floodmark, present site and datum, from rating curve extended above 1,200 ft³/s (34 m³/s); minimum, 20 ft³/s (0.57 m³/s) Nov. 29, 1979, gage height, 2.98 ft (0.908 m), result of freezeup.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,960 ft³/s (55.5 m³/s) Apr. 25, gage height, 7.15 ft (2.179 m); minimum, 20 ft³/s (0.57 m³/s) Nov. 29, gage height, 2.98 ft (0.908 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

3.0	22	4.0	260
3.1	32	5.0	672
3.2	48	6.0	1210
3.5	112	7.1	1920

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	135	60	112	135	384	224	1460	1260	696	135	70
2	60	132	109	125	186	381	240	1390	1320	706	132	77
3	60	130	183	107	221	369	247	1420	1760	730	125	86
4	60	127	163	112	202	346	243	1550	1730	701	114	83
5	59	130	152	107	195	346	253	1550	1640	648	114	77
6	59	132	141	107	195	342	298	1560	1600	583	109	72
7	60	135	132	83	211	302	320	1680	1480	539	104	68
8	62	132	132	70	205	288	309	1630	1390	499	102	70
9	62	130	125	119	172	270	302	1570	1360	465	97	169
10	62	127	122	138	143	257	331	1520	1420	441	90	102
11	66	122	112	114	130	250	408	1480	1520	416	88	112
12	66	117	72	83	143	267	400	1470	1540	388	86	146
13	64	107	50	208	143	250	416	1420	1470	361	79	157
14	66	107	90	926	160	250	539	1240	1350	346	79	143
15	68	107	95	1120	169	253	706	1290	1260	331	77	152
16	70	107	130	644	180	260	868	1160	1150	316	79	138
17	70	117	112	465	243	227	964	1170	1100	298	79	127
18	74	119	102	428	270	230	1140	1150	1180	284	81	119
19	74	119	104	324	547	263	1350	1110	1280	270	83	114
20	100	107	109	230	658	253	1500	1130	1280	247	86	107
21	192	72	130	143	663	243	1710	1230	1290	233	90	107
22	195	52	122	224	449	253	1680	1400	1240	221	83	107
23	183	86	102	233	396	260	1640	1520	1140	208	79	102
24	163	132	77	180	327	257	1770	1570	1050	195	77	102
25	157	130	83	189	288	243	1850	1500	937	177	74	104
26	154	138	117	186	288	224	1630	1390	894	169	72	104
27	152	119	100	125	302	221	1490	1430	868	160	70	104
28	143	64	104	83	320	230	1570	1400	851	149	70	102
29	138	25	83	79	388	214	1640	1320	730	141	70	97
30	138	46	55	55	---	221	1600	1230	706	141	70	95
31	135	---	74	74	---	233	---	1190	---	138	70	---
TOTAL	3072	3303	3342	7193	7929	8387	27638	43040	37766	11197	2764	3213
MEAN	99.1	110	108	232	273	271	921	1388	1259	361	89.2	107
MAX	195	138	183	1120	663	384	1850	1680	1780	730	135	169
MIN	59	25	50	55	130	214	224	1110	706	138	70	68
AC-FT	6090	6550	6630	14270	15730	16640	54820	85370	74910	22210	5480	6370

CAL YR 1979 TOTAL 141845 MEAN 389 MAX 2500 MIN 25 AC-FT 281300
WTR YR 1980 TOTAL 158844 MEAN 434 MAX 1850 MIN 25 AC-FT 315100

13168500 BRUNEAU RIVER NEAR HOT SPRING, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT 15...	1200	70	147	--	15.5	20.5	--	--	--
NOV 15...	1330	106	211	8.4	12.0	12.0	46	0	15
JAN 07...	1050	66	187	--	-2.5	11.5	--	--	--
FEB 22...	1200	426	128	--	5.0	6.5	--	--	--
APR 16...	1320	806	109	--	20.0	14.5	--	--	--
MAY 08...	1410	1600	89	--	18.0	14.0	--	--	--
JUN 26...	1615	897	81	7.7	23.0	19.5	27	0	9.0
SEP 10...	1015	106	343	--	15.0	21.5	--	--	--

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 15...	--	--	--	--	--	--	--	--	--
NOV 15...	2.1	19	50	1.2	3.4	74	9.1	4.8	2.0
JAN 07...	--	--	--	--	--	--	--	--	--
FEB 22...	--	--	--	--	--	--	--	--	--
APR 16...	--	--	--	--	--	--	--	--	--
MAY 08...	--	--	--	--	--	--	--	--	--
JUN 26...	1.2	5.8	30	.5	1.7	41	4.0	.4	.3
SEP 10...	--	--	--	--	--	--	--	--	--

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 15...	--	--	--	--	--	--	--	--
NOV 15...	33	133	.18	38.1	.08	.000	--	--
JAN 07...	--	--	--	--	--	--	--	--
FEB 22...	--	--	--	--	--	--	--	--
APR 16...	--	--	--	--	--	--	--	--
MAY 08...	--	--	--	--	--	--	292	1310
JUN 26...	21	68	.09	165	.05	.010	--	--
SEP 10...	--	--	--	--	--	--	--	--

13169500 BIG JACKS CREEK NEAR BRUNEAU, ID
(Hydrologic bench-mark station)

LOCATION.--Lat 42°47'06", long 115°59'00", in NW¼SE¼ sec.28, T.7 S., R.4 E., Owyhee County, Hydrologic Unit 17050102, Bureau of Land Management lands, on left bank, 0.2 mi (0.3 km) upstream from confluence with Little Jacks Creek, 11.5 mi (18.5 km) southwest of Bruneau, and at mile 12.7 (20.4 km).

DRAINAGE AREA.--253 mi² (655 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1938 to October 1949, July 1965 to current year. Prior to October 1968, published as Wickahoney Creek near Bruneau.

REVISED RECORDS.--WRD Idaho 1967: Drainage area.

GAGE.--Water-stage recorder and a self-cleaning broad-crested concrete weir. Altitude of gage is 2,810 ft (856 m), by barometer. December 1938 to October 1949 at site 145 ft (44.2 m) upstream at different datum.

REMARKS.--Records fair. No diversion or regulation.

AVERAGE DISCHARGE.--25 years (1940-49, 1966-80), 3.53 ft³/s (0.10 m³/s), 2,560 acre-ft/yr (3.16 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,100 ft³/s (59.5 m³/s) Jan. 22, 1943, gage height, 12.4 ft (3.78 m), from high-water mark (site and datum then in use), on basis of slope-area measurement of peak flow; no flow for long periods each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 485 ft³/s (13.7 m³/s) Jan. 13, gage height, 3.82 ft (1.164 m); no flow for many days.

Rating table (gage height, in feet, and discharge, in cubic feet per second)

1.59	0.0	2.1	5.5	2.7	53
1.70	.10	2.2	9.1	3.0	110
1.8	.56	2.3	14	3.3	201
1.9	1.4	2.5	29	3.6	336
2.0	3.0				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	1.5	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	1.1	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.91	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.68	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.08	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.10	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.23	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.20	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	160	.00	.18	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	209	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	97	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	33	.27	.60	.00	.88	.00	.00	.00	.00
17	.00	.00	.00	15	1.3	.00	.00	1.3	.00	.00	.00	.00
18	.00	.00	.00	11	1.3	.00	.00	.23	.00	.00	.00	.00
19	.00	.00	.00	7.5	12	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	3.4	4.9	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	1.7	3.6	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	4.9	3.2	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	3.6	2.4	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	2.8	1.8	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	1.9	1.5	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.15	3.0	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	4.9	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	3.6	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	2.1	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	550.95	45.87	5.63	.00	2.41	.00	.00	.00	.00
MEAN	.000	.000	.000	17.8	1.58	.18	.000	.078	.000	.000	.000	.000
MAX	.00	.00	.00	209	12	1.5	.00	1.3	.00	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	1090	91	11	.00	4.8	.00	.00	.00	.00

CAL YR 1979 TOTAL 1491.63 MEAN 4.09 MAX 263 MIN .00 AC-FT 2960
WTR YR 1980 TOTAL 604.86 MEAN 1.65 MAX 209 MIN .00 AC-FT 1200

13169500 BIG JACKS CREEK NEAR BRUNEAU, ID--Continued
(Hydrologic bench-mark station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967-76, March 1978 to current year.
REMARKS.--Because of insignificant or no flow, unable to sample for water quality except on January 14, 1980.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)
JAN 14...	1330	227	66	7.8	15.0	5.0	11.3	101	540	230

DATE	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)
JAN 14...	1300	22	1	6.2	1.6	3.8	24	.4	3.6	21

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
JAN 14...	4.5	2.3	.2	27	91	62	.12	55.8	.52	.870

DATE	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	CYANIDE TOTAL (MG/L AS CN)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
JAN 14...	5	400	1	20	29	.00	21	550	.1	0	0	80

13169500 BIG JACKS CREEK NEAR BRUNEAU, ID--Continued

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)	URANIUM DIS-SOLVED, EXTRAC-TION (UG/L)
JAN 14...	1330	3.5	30	32	12	33	11	.08	.20

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	PCB TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-AZINON, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL (UG/L)
JAN 14...	1330	.00	.00	.0	.00	.00	.00	.00	.00	.00	.00	.00

DATE	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA-THION, TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	METHYL PARA-THION, TOTAL (UG/L)	METHYL TRI-THION, TOTAL (UG/L)	PARA-THION, TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	TOTAL TRI-THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JAN 14...	.00	.00	.00	.00	.00	.00	.00	0	.00	.00	.00	.00

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
JAN 14...	1175	720

13172500 SNAKE RIVER NEAR MURPHY, ID

LOCATION.--Lat 43°17'31", long 116°25'12", in NW¼NE¼SE¼ sec.35, T.1 S., R.1 W., Ada County, Hydrologic Unit 17050103, on right bank 4.2 mi (6.8 km) downstream from Swan Falls powerplant, 7.5 mi (12.1 km) northeast of Murphy, and at mile 453.5 (729.7 km).

DRAINAGE AREA.--41,900 mi² (108,500 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August to October 1912, August 1913 to current year.

REVISED RECORDS.--WSP 1737: 1933(M).

GAGE.--Water-stage recorder. Datum of gage is 2,271.17 ft (692.253 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 7, 1914, nonrecording gage and Sept. 7, 1914, to Sept. 30, 1935, water-stage recorder at site 3.5 mi (5.6 km) upstream at datum 9.79 ft (2.984 m) higher.

REMARKS.-- Records good. Major regulation by American Falls Reservoir 260.5 mi (419.1 km) upstream (see sta 13076500). Diurnal fluctuation caused by hydroelectric plants upstream. Diversions above station for irrigation of about 2,590,000 acres (1,050,000 hm²) of which about 701,000 acres (284,000 hm²) are by withdrawals from ground water (1966 determination).

AVERAGE DISCHARGE.--67 years, 11,010 ft³/s (311.8 m³/s) 7,977 acre-ft/yr (9,840 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 47,300 ft³/s (1,340 m³/s) June 22, 1918, gage height, 13.95 ft (4.252 m), site and datum then in use; minimum recorded, 3,900 ft³/s (110 m³/s) July 9, 1949, gage height, 2.53 ft (0.771 m); minimum daily, 5,000 ft³/s (142 m³/s) July 2, 6, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 29,000 ft³/s (821 m³/s) June 5, gage height, 10.95 ft (3.338 m); minimum, 5,580 ft³/s (158 m³/s) July 16, gage height, 2.92 ft (0.890 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Jan. 20 to May 29)

2.9	5520	8.0	20200
4.0	8590	11.0	29200
6.0	14300		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8060	8910	8140	8480	7220	8430	7550	9220	22400	6180	6270	7160
2	8230	8960	8310	7610	7130	8430	7530	13100	23700	6520	6350	7270
3	8170	8410	8450	7970	7220	7860	7160	13000	24400	6550	6270	6880
4	8170	9930	8760	7860	7380	7860	7890	11000	26200	6180	6160	7270
5	8120	9250	8030	7830	7020	7860	7950	8430	27600	6380	6300	8000
6	8170	9190	8230	8450	7380	8030	8200	9500	27400	6380	6380	7270
7	8340	9100	8650	7780	7530	8570	12700	9960	28200	6550	6300	7190
8	8200	9080	8710	7950	7610	8820	13600	9300	28000	7890	6410	7130
9	8280	9020	8680	7690	8170	8570	11500	8510	27400	6710	6320	7550
10	8310	8200	7830	7830	8480	8820	13800	9530	27100	6410	6320	8370
11	8290	7410	7240	8620	7690	8200	13700	9840	26400	6100	6320	9980
12	8000	7640	8230	8450	7050	8230	12800	11900	23000	5910	6240	9730
13	8090	8570	8590	8480	7300	8030	12000	13000	20200	5710	6160	10400
14	8030	8880	8650	8370	7160	7380	11300	15100	16600	5690	6130	9900
15	7810	8200	7970	11900	7440	7500	11400	17000	15900	5690	6070	9250
16	8310	8280	7920	13000	7470	7720	11600	17100	14900	5690	6020	10200
17	8570	8740	7890	12200	7190	8570	12200	17300	12300	5770	6160	9810
18	8510	8650	8000	10500	8930	7530	9840	17800	11200	5850	6210	9980
19	8960	8060	8590	10200	10400	7360	9900	16400	13000	5740	6490	9270
20	9080	8430	8570	9670	10200	8000	7950	14500	11400	5740	6990	9500
21	8960	8850	8570	7670	10200	8930	7220	14000	11300	5770	6910	9420
22	10000	8280	8540	8480	10200	8820	8260	13900	10300	5770	6770	9560
23	9810	8430	7830	8540	9670	8140	8450	13000	8430	5740	6630	9420
24	9330	8880	8280	8450	8930	8400	8200	12800	9560	5740	6800	9330
25	9420	8880	8480	8400	8200	8450	8260	14800	8590	5800	6710	9960
26	9100	8880	7810	8430	8440	8590	8370	18900	7950	5820	6710	9300
27	8960	8990	7780	8400	7690	8310	8030	19300	7410	5960	6660	9500
28	8960	8570	8450	7780	7950	7970	8260	22400	6770	6070	6550	8540
29	8990	8850	8060	7550	8430	7190	7950	22500	6490	6270	6440	7860
30	9050	8400	7500	8200	---	7410	7890	23900	6600	6440	6410	8140
31	8990	---	8170	8280	---	7750	---	22200	---	6350	6600	---
TOTAL	267260	260420	254910	271020	235720	251930	291460	449190	510700	189370	199060	263140
MEAN	8621	8681	8223	8743	8128	8127	9715	14490	17020	6109	6421	8771
MAX	10000	9930	8760	13000	10400	8930	13800	23900	28200	7890	6990	10400
MIN	7810	7410	7240	7550	7020	7190	7160	8430	6490	5690	6020	6880
AC-FT	530100	516500	505600	537600	467600	499700	578100	891000	1013000	375600	394800	521900

CAL YR 1979 TOTAL 3639010 MEAN 9970 MAX 22600 MIN 5000 AC-FT 7218000
WTR YR 1980 TOTAL 3444180 MEAN 9410 MAX 28200 MIN 5690 AC-FT 6832000

13172500 SNAKE RIVER NEAR MURPHY, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.
REMARKS.--Miscellaneous chemical data published for water years 1973-74.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT
OCT 19...	1305	8960	454	--	12.0	14.5	--	--	--	--	--	--
JAN 10...	1230	7510	521	8.6	2.0	5.0	200	20	47	20	33	37
FEB 25...	1006	7980	452	--	5.5	7.5	--	--	--	--	--	--
APR 14...	1433	11200	485	--	25.0	11.5	--	--	--	--	--	--
JUN 18...	1017	10800	430	--	21.5	19.5	--	--	--	--	--	--
JUL 24...	1450	5720	439	--	34.5	29.0	--	--	--	--	--	--
SEP 18...	1755	9010	489	--	24.0	15.0	--	--	--	--	--	--

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 19...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 10...	1.0	5.2	180	56	27	.7	34	338	.46	6850	1.5	.110
FEB 25...	--	--	--	--	--	--	--	--	--	--	--	--
APR 14...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 18...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 24...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 18...	--	--	--	--	--	--	--	--	--	--	--	--

13176000 OWYHEE RIVER ABOVE CHINA DIVERSION DAM, NEAR OWYHEE, NV

LOCATION.--Lat 41°55'20", long 116°04'10", in NW¼ sec.6, T.46 N., R.53 E., Elko County, Hydrologic Unit 17050104, on right bank 1,000 ft (305 m) downstream from Skull Creek, 1 mi (1.6 km) upstream from China diversion dam, and 2 mi (3.2 km) southeast of Owyhee, and at mile 262.0 (422 km).

DRAINAGE AREA.--458 mi² (1,186 km²).

PERIOD OF RECORD.--March 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 5,425 ft (1,654 m) National Geodetic Vertical Datum of 1929. Prior tp Oct. 1, 1939, at datum 1.48 ft (0.451 m) higher.

REMARKS.--Records poor. No gage-height record November 7 to April 2. Numerous diversions above station for irrigation. Flow partly regulated by Wild Horse Reservoir.

AVERAGE DISCHARGE.--41 years, 145 ft³/s (4.106 m³/s), 105,100 acre-ft/yr (130 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,790 ft³/s (79.0 m³/s) about May 18, 1975, gage height, 10.84 ft (3.304 m), from inside high-water marks; minimum, 1.8 ft³/s (0.051 m³/s) Nov. 16, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,140 ft³/s (60.6 m³/s) Jan. 14, gage height, 10.17 ft (3.100 m); from flood marks; minimum daily 17 ft³/s (0.31 m³/s) Oct. 1-6, 9-13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	22	32	24	33	165	100	511	579	182	156	111
2	17	22	39	24	33	150	105	487	773	192	152	109
3	17	23	35	25	33	140	106	487	777	190	151	106
4	17	25	30	25	34	140	110	468	760	172	144	107
5	17	26	27	25	34	130	118	447	767	167	143	106
6	17	23	25	25	35	120	119	510	715	159	137	104
7	18	22	24	25	37	115	116	441	669	153	138	105
8	18	22	24	25	38	110	120	421	620	152	139	107
9	17	22	23	26	39	105	131	463	574	159	139	107
10	17	22	23	26	41	105	151	452	523	156	136	111
11	17	22	23	35	42	100	141	434	485	154	136	119
12	17	23	23	50	44	100	153	481	433	153	129	99
13	17	23	23	100	47	100	188	438	404	154	128	95
14	18	23	23	1300	50	100	250	424	395	154	124	94
15	19	23	24	900	56	100	309	479	375	150	139	91
16	19	23	24	500	64	100	353	430	339	151	148	89
17	19	22	24	350	130	100	411	396	310	144	150	87
18	26	22	24	210	350	98	515	366	289	160	151	86
19	70	22	24	120	1000	98	561	350	276	169	159	85
20	53	23	24	96	600	98	644	336	245	170	156	88
21	38	23	24	82	250	96	683	328	230	166	140	86
22	37	24	24	72	160	94	686	325	215	166	134	85
23	32	24	24	64	140	94	695	357	203	166	138	84
24	26	24	24	58	120	92	790	378	190	163	135	84
25	26	23	24	52	110	92	764	384	177	166	135	83
26	26	23	24	48	115	92	651	437	179	161	141	83
27	24	22	24	45	120	92	621	442	171	159	137	83
28	23	23	24	42	140	92	618	447	166	156	136	83
29	22	24	24	38	160	94	605	488	157	157	135	78
30	22	27	24	35	---	94	550	483	148	155	118	64
31	22	---	24	34	---	96	---	553	---	154	112	---
TOTAL	745	692	782	4481	4055	3302	11364	13443	12144	5010	4316	2819
MEAN	24.0	23.1	25.2	145	140	107	379	434	405	162	139	94.0
MAX	70	27	39	1300	1000	165	790	553	777	192	159	119
MIN	17	22	23	24	33	92	100	325	148	144	112	64
AC-FT	1480	1370	1550	8890	8040	6550	22540	26660	24090	9940	8560	5590

CAL YR 1979 TOTAL 49937 MEAN 137 MAX 674 MIN 11 AC-FT 99050
WTR YR 1980 TOTAL 63153 MEAN 173 MAX 1300 MIN 17 AC-FT 125300

13177800 SOUTH FORK OWYHEE RIVER NEAR WHITEROCK, NV

LOCATION.--Lat 41°48'00", long 116°29'00", in NE¼ sec.16, T.45 N., R.49 E., Elko County, Hydrologic Unit 17050105, on left bank 500 ft (152 m) downstream from Rye Grass Creek, 1.8 mi (2.9 km) upstream from Chimney Creek, and 17 mi (27 km) northwest of Whiterock, and at mile 54.0 (87.0 km).

DRAINAGE AREA.--1,080 mi^2 (2,800 km^2), approximately.

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,900 ft (1,490 m), from topographic map.

REMARKS.--Records poor. Many diversions for irrigation of hay meadows above station. Flow partly regulated by four small reservoirs, total capacity, about 16,100 acre-ft (19.8 hm^3).

AVERAGE DISCHARGE.--25 years, 165 ft^3/s (4.673 m^3/s), 119,500 acre-ft/yr (147 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,830 ft^3/s (108 m^3/s) June 5, 1963, gage height, 7.55 ft (2.301 m); no flow Oct. 1-12, 1955, part of Sept. 17, 28, 1960, Aug. 27, 31, 1961.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 600 ft^3/s (17.0 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 14	unknown	unknown		unknown		Apr. 19	unknown	unknown		unknown	
Feb. 19	unknown	unknown		unknown		June 3	1900	*1670	47.3	6.25	1.905

Minimum daily discharge, 25 ft^3/s (0.71 m^3/s) Oct. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	32	43	36	48	230	160	770	751	145	49	26
2	25	32	55	36	49	230	160	720	1010	135	47	26
3	26	33	50	36	49	210	158	690	1540	125	46	26
4	26	34	45	36	50	205	160	660	1570	118	44	28
5	27	36	43	36	51	200	170	630	1440	110	42	28
6	27	35	40	36	54	195	175	610	1360	102	41	26
7	26	33	36	36	56	190	180	590	1160	95	39	27
8	27	32	35	37	57	185	185	570	957	90	38	28
9	27	32	35	38	57	185	195	567	838	84	37	28
10	27	32	34	40	59	180	205	597	773	80	36	29
11	27	32	33	50	61	180	220	610	695	66	35	34
12	27	32	33	70	65	180	230	681	620	53	33	33
13	27	32	33	110	70	178	260	697	551	52	32	34
14	26	32	34	1900	75	175	335	619	518	61	31	31
15	26	32	35	1250	80	170	410	627	510	65	30	29
16	27	32	35	800	90	168	530	705	514	61	30	28
17	27	32	35	500	200	168	630	606	457	84	29	27
18	27	32	35	300	500	165	720	531	410	79	28	27
19	100	32	35	200	1500	163	830	456	360	83	28	26
20	60	32	35	130	850	162	900	390	325	82	28	26
21	54	33	35	110	500	160	970	348	300	78	27	26
22	50	33	35	96	290	160	1020	341	280	74	27	27
23	46	33	35	90	200	158	1090	320	255	72	27	27
24	42	33	35	82	180	158	1150	369	235	69	27	26
25	39	33	35	77	165	158	1100	524	215	66	27	27
26	37	33	36	71	170	158	1010	657	200	63	26	27
27	35	33	36	67	180	158	940	610	190	61	26	27
28	34	34	36	62	200	158	860	557	180	58	26	27
29	32	36	36	57	220	160	830	541	165	56	26	27
30	32	39	36	53	---	160	800	519	155	54	26	28
31	32	---	36	50	---	160	---	615	---	51	26	---
TOTAL	1071	991	1150	6492	6126	5467	16583	17727	18534	2472	1014	836
MEAN	34.5	33.0	37.1	209	211	176	553	572	618	79.7	32.7	27.9
MAX	100	39	55	1900	1500	230	1150	770	1570	145	49	34
MIN	25	32	33	36	48	158	158	320	155	51	26	26
AC-FT	2120	1970	2280	12880	12150	10840	32890	35160	36760	4900	2010	1660

CAL YR 1979 TOTAL 70328 MEAN 193 MAX 1000 MIN 19 AC-FT 139500
WTR YR 1980 TOTAL 78463 MEAN 214 MAX 1900 MIN 25 AC-FT 155600

13181000 OWYHEE RIVER NEAR ROME, OR

LOCATION.--Lat 42°52'02", long 117°38'52", in SE¼NE¼ sec.14, T.31 S., R.41 E., Malheur County, Hydrologic Unit 17050107, on right bank 0.5 mi (0.8 km) downstream from Jordan Creek, 2.6 mi (4.2 km) north of Rome, and at mile 122.4 (196.9 km).

DRAINAGE AREA.--8,000 mi² (20,700 km²), approximately.

PERIOD OF RECORD.--October 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,344.20 ft (1,019.312 m) National Geodetic Vertical Datum of 1929. Prior to Feb. 10, 1960, at datum 0.24 ft (0.073 m) lower.

REMARKS.--Records good. Flow regulated by Antelope Reservoir, capacity, 70,000 acre-ft (86.3 hm³), increased in 1970), Wild Horse Reservoir, capacity, 32,690 acre-ft (40.3 hm³), and numerous small reservoirs. Diversions above station for irrigation.

AVERAGE DISCHARGE.--31 years, 913 ft³/s (25.86 m³/s), 661.500 acre-ft/yr (816 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,500 ft³/s (949 m³/s) Dec. 24, 1964, gage height, 16.7 ft (5.09 m), from floodmark; minimum, 42 ft³/s (1.19 m³/s) Aug. 12, 1954, July 28, Aug. 5, 1961, July 31, 1968.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5,400 ft³/s (153 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 14	unknown	*11700	331	*10.70	3.261	Feb. 19	0530	8680	246	9.29	2.832

Minimum, 105 ft³/s (2.97 m³/s) Oct. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	110	177	170	172	351	1850	801	2270	2410	506	232	164
2	109	177	193	175	473	1570	761	2070	2370	508	232	160
3	111	173	223	191	558	1430	731	1790	2750	495	232	167
4	113	173	238	192	543	1540	742	1740	3260	499	232	163
5	110	175	245	195	506	1660	805	1620	3260	507	232	162
6	111	178	228	180	501	1700	962	1530	3020	491	229	156
7	111	186	228	160	671	1470	937	1480	2910	457	228	156
8	111	187	245	160	702	1280	909	1440	2680	427	226	162
9	113	185	248	170	650	1150	925	1480	2390	402	224	163
10	114	177	244	208	558	1050	1020	1670	2130	376	219	174
11	113	182	245	197	480	1000	1090	1920	1970	358	213	172
12	114	182	189	162	439	1040	1110	1940	1810	337	213	166
13	111	176	189	288	412	1050	1160	1990	1660	307	214	234
14	111	173	185	9000	407	993	1360	2090	1580	303	207	219
15	131	169	195	6000	426	1080	1740	1990	1470	278	204	219
16	133	171	184	4000	497	1210	2190	1980	1430	262	198	241
17	137	170	194	2590	1230	1110	2090	2520	1360	256	193	234
18	139	172	198	2060	2470	1070	2250	1980	1300	245	210	222
19	149	170	190	1660	7300	1120	2470	1660	1170	245	195	218
20	149	173	184	1070	3780	1280	2610	1430	1110	242	190	214
21	151	165	186	823	3000	1310	2760	1270	1040	242	192	204
22	156	133	206	668	2160	1220	2860	1140	928	240	194	202
23	165	164	207	611	1790	1540	2990	1040	837	238	228	199
24	178	187	168	636	1430	1360	3150	1050	768	232	197	200
25	218	212	206	566	1440	1220	3240	1310	716	218	181	201
26	215	217	217	498	1420	985	3410	1490	665	206	172	203
27	194	211	193	350	2130	870	3100	2500	633	214	167	200
28	183	196	175	250	2550	801	2770	2810	581	210	163	192
29	174	160	166	320	2030	775	2560	2220	543	214	159	188
30	170	160	164	270	---	794	2440	1910	515	218	156	186
31	178	---	164	292	---	787	---	1880	---	225	161	---
TOTAL	4382	5331	6267	34114	40904	37335	55943	55210	49266	9958	6293	5741
MEAN	141	178	202	1100	1410	1204	1865	1781	1642	321	203	191
MAX	218	217	248	9000	7300	1850	3410	2810	3260	508	232	241
MIN	109	133	164	160	351	775	731	1040	515	206	156	156
AC-FT	8690	10570	12430	67670	81130	74050	111000	109500	97720	19750	12480	11390

CAL YR 1979 TOTAL 352002 MEAN 964 MAX 7450 MIN 105 AC-FT 698200
WTR YR 1980 TOTAL 310744 MEAN 849 MAX 9000 MIN 109 AC-FT 616400

13184500 MIDDLE FORK BOISE RIVER NEAR TWIN SPRINGS, ID

LOCATION.--Lat 43°42'49", long 115°37'50", in NW¼SE¼NW¼ sec.4, T.4 N., R.7 E., Boise County, Hydrologic Unit 17050111, Boise National Forest, on left bank 1,000 ft (300 m) upstream from confluence with North Fork Boise River, 1,000 ft (300 m) upstream from Troutdale guard station, and 4.5 mi (7.24 km) northeast of Twin Springs.

DRAINAGE AREA.--382 mi² (989 km²).

PERIOD OF RECORD.--October 1946 to September 1950, October 1976 to September 1980 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 3,480.60 ft (1,060.887 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. No regulation or diversion.

AVERAGE DISCHARGE.--8 years, 566 ft³/s (16.03 m³/s), 20.12 in/yr (511 mm/yr), 410,100 acre-ft/yr (506 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,370 ft³/s (124 m³/s) May 29, 1948, gage height, 7.40 ft (2.256 m); minimum, 60 ft³/s (1.70 m³/s) Dec. 30, 1978, gage height, 1.68 ft (0.512 m), result of freezeout upstream.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,900 ft³/s (53.8 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 6	0430	2780	78.7	6.13	1.868	June 12	0530	2290	64.9	5.60	1.707
May 23	0630	*3030	85.8	6.38	1.945	June 22	0530	2910	82.4	6.26	1.908

Minimum discharge, 65 ft³/s (1.84 m³/s) Nov. 28, 30, gage height, 1.90 ft (0.579 m), but may have been lower during period of ice effect.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	149	169	170	192	220	341	267	1930	1460	1640	382	223
2	147	163	187	182	219	341	264	2010	1510	1570	365	223
3	138	167	213	173	216	337	257	2210	1420	1660	349	243
4	144	170	193	175	210	341	253	2370	1360	1570	341	226
5	143	172	183	194	184	337	271	2520	1290	1480	337	217
6	145	164	171	191	188	322	285	2680	1250	1360	326	210
7	142	162	176	133	181	300	278	2520	1200	1220	318	213
8	141	158	175	184	171	282	267	2380	1180	1190	311	226
9	143	156	174	196	164	271	282	2400	1340	1120	303	217
10	144	143	177	205	163	264	311	2100	1750	1090	293	257
11	144	154	139	157	171	282	303	1810	2060	971	289	293
12	144	137	119	223	175	278	318	1580	2240	891	282	257
13	144	145	175	353	182	267	382	1460	1970	837	278	314
14	144	139	174	442	190	271	550	1360	1850	790	274	271
15	157	138	171	438	195	300	659	1350	1700	732	274	246
16	195	139	176	354	193	274	749	1360	1590	676	300	233
17	167	159	163	314	209	260	879	1290	1780	654	274	223
18	170	163	148	277	300	278	1120	1320	2190	632	271	223
19	261	153	154	240	420	267	1340	1430	2520	596	274	246
20	235	109	177	195	420	267	1650	1700	2550	570	267	236
21	190	77	179	219	393	278	1690	2160	2620	545	257	285
22	184	80	176	199	341	282	1860	2730	2660	525	253	250
23	181	132	165	204	300	293	1960	2910	2410	510	250	236
24	197	182	168	198	274	293	2270	2450	1940	496	240	230
25	185	169	172	216	260	289	2170	2030	1800	476	236	223
26	205	164	166	203	260	293	2040	1870	1900	453	233	217
27	183	144	125	189	282	296	2060	1720	1680	430	233	213
28	196	98	120	140	318	274	2210	1590	1510	412	230	207
29	181	72	110	144	345	274	2390	1540	1490	404	233	207
30	177	118	140	158	---	278	2200	1500	1630	404	226	204
31	172	---	170	180	---	264	---	1480	---	386	226	---
TOTAL	5248	4296	5106	6868	7144	8994	31735	59760	53850	26290	8725	7069
MEAN	169	143	165	222	246	290	1058	1928	1795	848	281	236
MAX	261	182	213	442	420	341	2390	2910	2660	1660	382	314
MIN	138	72	110	133	163	260	253	1290	1180	386	226	204
CFSM	.44	.37	.43	.58	.64	.76	2.77	5.05	4.70	2.22	.74	.62
IN.	.51	.42	.50	.67	.70	.88	3.09	5.82	5.24	2.56	.85	.69
AC-FT	10410	8520	10130	13620	14170	17840	62950	118500	106800	52150	17310	14020

CAL YR 1979 TOTAL 147149 MEAN 403 MAX 2740 MIN 72 CFSM 1.06 IN 14.33 AC-FT 291900
WTR YR 1980 TOTAL 225085 MEAN 615 MAX 2910 MIN 72 CFSM 1.61 IN 21.92 AC-FT 446500

13185000 BOISE RIVER NEAR TWIN SPRINGS, ID

LOCATION.--Lat 43°39'33", long 115°43'34", in NW¼NE¼ sec.27, T.4 N., R.6 E., Boise County, Hydrologic Unit 17050112, Boise National Forest, on right bank 0.7 mi (1.1 km) upstream from Birch Creek, 1.8 mi (2.9 km) upstream from maximum flow line of Arrowrock Reservoir, 3.2 mi (5.1 km) downstream from Twin Springs, 13 mi (20.9 km) upstream from Arrowrock Dam, and at mile 88.5 (142.4 km).

DRAINAGE AREA.--830 mi^2 (2,150 km^2), approximately. Mean altitude, 6,350 ft (1,935 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1911 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,255.70 ft (992.337 m) National Geodetic Vertical Datum of 1929. March 1911 to Apr. 3, 1915, nonrecording gage, and Apr. 4, 1915, to Sept. 30, 1965, water-stage recorder at site 0.3 mi (0.5 km) downstream at datum 5.26 ft (1.603 m) lower.

REMARKS.--Records good.

AVERAGE DISCHARGE.--69 years, 1,200 ft^3/s (33.98 m^3/s), 19.63 in/yr (499 mm/yr), 869,400 acre-ft/yr (1,072 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,800 ft^3/s (532 m^3/s) Dec. 23, 1964, gage height, 12.20 ft (3.719 m), from floodmark, site and datum then in use; minimum, 105 ft^3/s (2.97 m^3/s) Nov. 28, 1976, gage height, 2.64 ft (0.805 m); minimum gage height, 1.48 ft (0.451 m) Dec. 6, 7, 1960 (site and datum then in use).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,700 ft^3/s (105 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Apr. 7	0015	6,080	172	7.89	2.405
May 6	0415	*6,220	176	7.96	2.426
May 23	0800	5,920	168	7.81	2.380
June 12	0730	4,030	114	6.76	2.060
June 22	0800	4,870	138	7.24	2.207

Minimum discharge, 140 ft^3/s (3.96 m^3/s) Nov. 21, gage height, 2.72 ft (0.829 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	UCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	272	340	455	388	460	861	636	4410	2950	2770	683	416
2	270	332	424	366	492	870	615	4600	3060	2690	657	420
3	266	328	434	337	460	870	601	5070	2850	2790	631	464
4	267	340	415	338	429	861	594	5370	2700	2660	616	433
5	267	348	387	371	347	853	636	5700	2580	2520	602	414
6	266	336	360	387	342	811	697	5990	2480	2360	583	403
7	266	332	360	275	378	737	674	5650	2350	2150	566	401
8	267	320	360	330	360	697	643	5320	2270	2060	550	444
9	266	316	348	367	344	651	681	5430	2470	1960	533	432
10	267	300	360	381	340	629	794	4750	3090	1890	522	494
11	268	304	289	304	360	674	769	3980	3630	1740	512	600
12	269	289	210	384	368	666	827	3470	3930	1590	496	527
13	269	282	368	771	387	636	1030	3200	3510	1500	487	620
14	269	282	344	1300	396	651	1460	2990	3230	1430	479	573
15	292	267	320	1310	405	737	1740	2920	3010	1340	478	491
16	373	285	344	1030	401	651	1950	2970	2780	1240	543	457
17	318	364	308	832	445	615	2270	2780	3010	1180	499	441
18	310	364	282	700	729	681	2990	2790	3620	1130	486	437
19	581	312	274	548	1230	629	3590	2970	4180	1080	501	494
20	537	229	336	426	1290	622	4420	3380	4270	1030	483	470
21	404	170	352	458	1170	658	5020	4170	4370	985	469	503
22	371	232	356	450	985	658	4700	5150	4540	958	457	512
23	386	396	312	429	844	697	5050	5660	4150	922	459	477
24	405	378	320	419	729	697	5930	4810	3430	896	442	458
25	401	344	336	450	674	689	5550	4010	3110	853	431	444
26	415	336	320	429	658	705	5130	3730	3230	810	427	436
27	391	289	243	396	689	729	5190	3460	2940	774	424	427
28	387	210	225	293	794	651	5510	3220	2690	740	419	416
29	373	157	206	267	870	658	5820	3130	2610	719	423	411
30	352	297	284	278	---	666	5080	3050	2760	717	422	408
31	344	---	429	336	---	622	---	2990	---	688	421	---
TOTAL	10389	9079	10361	15350	17446	21432	80597	127120	95800	46172	15701	14003
MEAN	335	303	334	495	602	704	2687	4101	3193	1489	506	467
MAX	581	396	455	1310	1290	870	5930	5990	4540	2790	683	620
MIN	266	157	206	267	340	615	594	2780	2270	688	419	401
CFSM	.40	.37	.40	.60	.73	.85	3.24	4.94	3.85	1.79	.61	.56
IN.	.47	.41	.46	.69	.78	.98	3.61	5.70	4.29	2.07	.70	.63
AC-FT	20610	18010	20550	30450	34600	43300	159900	252100	190000	91580	31140	27770

CAL YR 1979 TOTAL 287773 MEAN 788 MAX 4980 MIN 150 CFSM .95 IN 12.90 AC-FT 570800
WTR YR 1980 TOTAL 463850 MEAN 1267 MAX 5990 MIN 157 CFSM 1.53 IN 20.79 AC-FT 920000

13185000 BOISE RIVER NEAR TWIN SPRINGS, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.
PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: June 1977 to May 1979 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT
OCT												
16...	1215	394	88	--	12.5	10.0	--	--	--	--	--	--
NOV												
14...	1412	277	92	7.9	7.5	2.0	30	0	11	.7	6.1	32
JAN												
11...	1345	276	94	--	-4.0	.0	--	--	--	--	--	--
FEB												
22...	1235	998	76	--	7.5	4.0	--	--	--	--	--	--
APR												
17...	1545	2180	62	--	23.5	8.0	--	--	--	--	--	--
MAY												
06...	1448	5880	36	--	19.0	7.5	--	--	--	--	--	--
JUN												
19...	1745	4160	33	--	30.0	12.0	--	--	--	--	--	--
JUL												
25...	1825	854	58	8.2	33.0	20.5	22	0	7.8	.7	3.2	23
SEP												
10...	1330	496	80	--	21.5	16.5	--	--	--	--	--	--

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT												
16...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
14...	.5	.4	43	2.2	.5	.7	15	63	.09	47.1	.05	.000
JAN												
11...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
22...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
17...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
06...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
19...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
25...	.3	.4	25	1.0	.1	.0	12	41	.06	94.5	.02	.010
SEP												
10...	--	--	--	--	--	--	--	--	--	--	--	--

13186000 SOUTH FORK BOISE RIVER NEAR FEATHERVILLE, ID

LOCATION.--Lat 43°29'40", long 115°18'20", in lot 6, NE¼ sec.19, T.2 N., R.10 E., Elmore County, Hydrologic Unit 17050113, on right bank 2.5 mi (4.0 km) upstream from Deer Creek, 8 mi (12.9 km) southwest of Featherville, and at mile 59.0 (94.9 km).

DRAINAGE AREA.--635 mi² (1,645 km²). Mean altitude, 6,840 ft (2,085 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1945 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,220 ft (1,286 m), from topographic map.

REMARKS.--Records good. No regulation. Diversions above station for irrigation of about 450 acres (180 hm²), 1966 determination.

AVERAGE DISCHARGE.--35 years, 789 ft³/s (22.34 m³/s), 16.87 in/yr (428.0 mm/yr), 571,600 acre-ft/yr (705 hm³).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,580 ft³/s (215 m³/s) May 24, 1956, gage height, 8.62 ft (2.627 m); minimum, 30 ft³/s (0.85 m³/s) Feb. 10, 1949, gage height, 0.60 ft (0.182 m), result of snowslide upstream.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 2,000 ft³/s (56.6 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 6	0515	*4250	120	6.06	1.847	June 12	0500	3010	85.2	5.06	1.542
May 23	0530	4040	114	5.89	1.795	June 21	0315	3460	98.0	5.41	1.649

Minimum discharge, 98 ft³/s (2.78 m³/s) Nov. 21, gage height, 1.12 ft (0.341 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 20 to May 16; stage-discharge relation affected by ice Nov. 22, Nov. 29 to Dec. 3, Dec. 12-14)

1.3	121	3.0	884
1.5	159	4.0	1850
2.0	308	5.0	3000
2.5	535	6.0	4310

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	173	210	175	219	202	276	357	3040	1840	1950	441	276
2	171	205	200	210	231	293	353	3080	1870	1940	423	273
3	169	213	210	205	228	293	362	3300	1760	2140	404	280
4	169	222	231	208	222	300	360	3510	1710	1880	396	269
5	169	219	219	216	208	297	414	3790	1640	1740	396	259
6	169	216	213	199	210	266	432	4100	1640	1620	383	256
7	169	213	213	173	210	273	404	3910	1560	1480	370	256
8	169	208	210	191	199	266	383	3700	1530	1410	357	266
9	171	208	205	205	191	269	404	3060	1740	1330	345	259
10	173	199	208	216	183	269	427	3270	2230	1250	337	308
11	173	205	173	202	191	290	414	2890	2750	1140	333	378
12	173	191	135	202	197	290	451	2540	2960	1060	326	311
13	176	191	135	234	202	283	552	2320	2700	990	322	370
14	183	191	162	322	210	290	751	2150	2570	931	318	337
15	191	178	183	326	216	297	917	2070	2320	884	311	304
16	213	176	205	311	216	273	1040	2080	2140	812	349	286
17	207	234	194	300	225	263	1210	1960	2300	766	330	276
18	205	225	178	280	266	297	1520	1960	2720	729	318	273
19	345	199	171	246	315	283	1840	2110	3240	693	326	283
20	330	157	205	213	326	293	2240	2420	3290	659	315	290
21	259	124	213	199	315	311	2550	3010	3310	625	304	370
22	237	130	216	216	286	315	2610	3680	3260	599	297	330
23	237	199	197	225	273	345	2860	3950	3030	575	290	308
24	237	213	194	219	253	353	3090	3500	2630	540	283	293
25	237	208	208	222	256	353	3120	2920	2420	523	276	283
26	243	213	189	225	256	357	3090	2560	2400	490	283	276
27	234	191	162	213	259	357	3220	2310	2190	475	276	273
28	228	160	149	202	273	337	3410	2110	2000	456	276	269
29	222	140	171	199	276	345	3680	2020	1910	451	276	266
30	213	155	197	197	---	357	3490	1930	1930	461	273	263
31	213	---	210	197	---	349	---	1870	---	446	280	---
TOTAL	6453	5793	5931	6992	6895	9460	45957	87720	69590	31045	10214	8741
MEAN	208	193	191	226	238	305	1532	2830	2320	1001	329	291
MAX	345	234	231	326	326	357	3680	4100	3310	2140	441	378
MIN	169	124	135	173	183	263	353	1870	1530	446	273	256
CFSM	.33	.30	.30	.36	.38	.48	2.41	4.46	3.65	1.58	.52	.46
IN.	.38	.34	.35	.41	.40	.55	2.69	5.14	4.08	1.82	.60	.51
AC-FT	12800	11490	11760	13870	13680	18760	91160	174000	138000	61580	20260	17340

CAL YR 1979 TOTAL 168214 MEAN 461 MAX 3190 MIN 124 CFSM .73 IN 9.85 AC-FT 333700
WTR YR 1980 TOTAL 294791 MEAN 805 MAX 4100 MIN 124 CFSM 1.27 IN 17.27 AC-FT 584700

13186000 SOUTH FORK BOISE RIVER NEAR FEATHERVILLE, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973-74, 1976 to current year.
PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: May 1977 to October 1979 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT
OCT 19...	1012	354	109	--	7.5	8.0	--	--	--	--	--	--
DEC 13...	1030	126	131	8.0	-7.5	.5	40	0	14	1.3	9.2	36
JAN 24...	1042	207	124	--	-8.5	.5	--	--	--	--	--	--
MAR 18...	1412	304	125	--	.5	5.5	--	--	--	--	--	--
MAY 13...	1500	2260	76	8.8	6.0	5.5	34	11	12	1.0	3.6	18
JUL 15...	1645	869	80	--	25.0	16.0	--	--	--	--	--	--
SEP 09...	1030	263	107	--	16.5	14.5	--	--	--	--	--	--

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 19...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 13...	.6	.8	49	5.1	1.3	.6	18	81	.11	27.6	.21	.010
JAN 24...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 18...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 13...	.3	.7	23	12	1.1	.2	13	60	.08	366	.47	.010
JUL 15...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 09...	--	--	--	--	--	--	--	--	--	--	--	--

13190000 ANDERSON RANCH RESERVOIR AT ANDERSON RANCH DAM, ID

LOCATION.--Lat 43°21'30", long 115°26'40", in SE¼ sec.1, T.1 S., R.8 E., Elmore County, Hydrologic Unit 17050113, Boise National Forest, at inlet structure of outlet works of Anderson Ranch Dam on South Fork Boise River, 1.5 mi (2.4 km) downstream from Camas Creek, 3 mi (4.8 km) northwest of Bennett, and at mile 43.5 (70.0 km).

DRAINAGE AREA.--980 mi² (2,540 km²), approximately.

PERIOD OF RECORD.--December 1945 to current year.

REVISED RECORDS.--WRD Idaho 1969: 1968(m).

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Water and Power Resources Service). Prior to June 8, 1962, nonrecording gage or supplementary gage in powerhouse read once daily.

REMARKS.--Reservoir is formed by earth-fill dam. Storage began Dec. 15, 1945. Usable contents, 464,200 acre-ft (572 hm³) between elevations 3,992 ft (1,216.8 m) and 4,196 ft (1,278.9 m), top of spillway gates. Elevation of spillway crest, 4,174 ft (1,272.2 m), and of top of dam, 4,206 ft (1,281.9 m). Dead storage below 3,992 ft (1,216.8 m) is 28,980 acre-ft (35.7 hm³). Figures given herein represent usable contents. Water is used for irrigation in Boise valley and for power production.

COOPERATION.--Capacity table and daily readings furnished by Water and Power Resources Service.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 472,800 acre-ft (583 hm³) June 26, 1971, elevation, 4,197.82 ft (1,279.495 m); no usable contents prior to Jan. 27, 1946; minimum since full capacity was attained June 21, 1951, 63,830 acre-ft (78.7 hm³) Jan. 6, 1962, elevation, 4,058.35 ft (1,236.985 m).

EXTREMES FOR CURRENT YEAR.--Maximum observed contents, 464,200 acre-ft (572 hm³) May 28, June 19, 28, 30, July 3, 5, 8, elevation, 4,196.00 ft (1,278.941 m); minimum observed, 249,400 acre-ft (308 hm³) Jan. 11, elevation, 4,141.05 ft (1,262.192 m).

Capacity table (elevation, in feet, and contents, in acre-feet)

4,140.0	246,100
4,160.0	314,400
4,180.0	392,400
4,200.0	483,400

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	267800	258200	253400	249900	250900	254500	265100	373800	464000	463800	433800	363800
2	267300	257900	253500	249900	251000	254800	265700	381000	463500	463800	431900	361200
3	266800	257800	253500	249700	251000	255200	265800	385800	463900	464200	429800	359000
4	266200	257800	253500	249700	251000	255600	266100	390400	463700	464100	427900	356500
5	265700	257700	253300	249800	251000	256200	266600	405800	463600	464200	425700	354000
6	265200	257600	253300	249700	250800	256300	266800	415300	464000	464100	424100	351500
7	264900	257600	253300	249600	250900	256500	267000	424200	463800	464000	421700	349100
8	264400	257300	253200	249500	250800	256700	267100	431800	463300	464200	419400	346900
9	263900	257200	253200	249500	250700	256900	267500	438500	463600	463900	417300	344600
10	263400	257000	253000	249500	250700	257100	267500	443600	463900	463800	415200	342600
11	262900	256700	253000	249400	250400	257300	267800	448200	464000	463700	413000	340300
12	262500	256600	252700	249800	250300	257300	268100	451600	463600	462900	410800	337800
13	262200	256300	252300	250000	250300	257600	269900	453800	463500	462200	408600	335900
14	261500	256100	252200	250400	250200	258100	270300	456100	463000	461300	406200	333600
15	261100	255900	251900	251000	250200	258400	271000	459000	463500	460300	403500	332200
16	260900	255700	251800	251300	250200	258900	274300	462000	463600	459400	401300	331400
17	260700	255500	251700	251800	250400	259100	276900	463500	464000	458200	399100	330400
18	260300	255500	251500	251900	250900	259600	280400	464000	464000	456900	396800	328900
19	260700	255400	251300	252000	251500	259600	285100	463800	464200	455800	394500	328200
20	260600	255200	251300	252100	252000	259700	290600	464100	464100	454300	392300	327200
21	260600	254700	251200	252000	252400	260000	298900	464000	464000	452900	390000	326500
22	260500	254300	251100	251900	252700	260400	303600	464100	463900	451400	387700	326000
23	260200	254300	251000	251900	253100	260900	310900	464100	464000	450000	385400	325500
24	260100	254300	251000	251800	253200	261300	318500	463900	463900	448300	383000	325400
25	259600	254200	251000	251700	253400	261800	326600	464000	464100	446600	380600	325400
26	259400	254100	250900	251700	253600	262200	333600	464000	464000	444800	378200	325400
27	259000	253900	250700	251600	253800	262700	340900	463700	464000	443000	375800	325400
28	258600	253600	250400	251300	254000	263200	349000	464200	464200	441300	373400	325400
29	258500	253400	250200	251300	254300	263700	358600	463900	463700	439200	370900	325500
30	258300	253500	250000	251100	---	264200	366600	463700	464200	437500	368600	325500
31	258200	---	249900	250900	---	264500	---	464000	---	435600	366200	---
MAX	267800	258200	253500	252100	254300	264500	366600	464200	464200	464200	433800	363800
MIN	258200	253400	249900	249400	250200	254500	265100	373800	463000	435600	366200	325400
(†)	4143.77	4142.32	4141.21	4141.50	4142.55	4145.67	4173.69	4195.96	4196.00	4189.86	4173.59	4163.03
(‡)	-10300	-4700	-3600	+1000	+3400	+10200	+102100	+97400	+200	-28600	-69400	-40700

CAL YR.................. ‡ -136400
WTR YR.................. ‡ +57000

†Elevation, in feet, at end of month.
‡Change in contents, in acre-feet.

13190500 SOUTH FORK BOISE RIVER AT ANDERSON RANCH DAM, ID

LOCATION.--Lat 43°20'30", long 115°28'40", in NW¼ sec.14, T.1 S., R.8 E., Elmore County, Hydrologic Unit 17050113, Boise National Forest, on right bank 600 ft (180 m) upstream from Dixie Creek, 1.8 mi (2.9 km) downstream from Anderson Ranch 2.2 mi (3.5 km) northwest of Bennett, and at mile 41.5 (66.8 km).

DRAINAGE AREA.--982 mi² (2,543 km²).

PERIOD OF RECORD.--April 1943 to current year (includes flow of Dixie Creek prior to October 1946).

GAGE.--Water-stage recorder. Datum of gage is 3,830.0 ft (1,167.38 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow regulated by Anderson Ranch Reservoir 1.8 mi (2.9 km) upstream (see sta 13190000) beginning Dec. 15, 1945. Flow of Little Camas Creek is stored in Little Camas Reservoir, capacity, 22,300 acre-ft (27.5 hm³), no spill most years, and diverted out of basin through Little Camas Canal for irrigation of about 5,000 acres (2,020 hm²), 1966 determination.

AVERAGE DISCHARGE.--37 years, 1,001 ft³/s (28.35 m³/s), 725,200 acre-ft/yr (894 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,850 ft³/s (279 m³/s) May 25, 1956, gage height, 10.56 ft (3.219 m); minimum, 0.1 ft³/s (0.003 m³/s) Nov. 13, 1959; minimum gage height, 0.99 ft (0.302 m) Feb. 16, 1950.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,360 ft³/s (152 m³/s) May 23, 24, gage height, 8.00 ft (2.438 m); minimum, 142 ft³/s (4.02 m³/s) Oct. 31, Nov. 1, gage height, 2.34 ft (0.713 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 11 to June 21)

2.3	131	5.0	1,770
2.6	219	6.0	2,840
3.0	366	7.0	4,080
3.5	594	8.0	5,550
4.0	899		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	399	316	334	336	343	338	343	615	2500	2420	1450	1530
2	403	315	338	340	358	340	339	615	2450	2240	1460	1530
3	404	316	334	337	347	343	594	609	2240	2370	1460	1530
4	406	319	330	325	345	344	609	641	2230	2080	1460	1540
5	404	322	333	340	344	345	615	636	1940	1830	1460	1530
6	403	319	332	336	339	356	615	630	2100	1890	1460	1540
7	406	322	332	336	336	354	615	625	2140	1600	1450	1550
8	405	325	332	335	338	350	615	906	1910	1520	1460	1540
9	405	323	332	334	337	348	604	1530	2110	1480	1460	1550
10	414	322	332	337	337	351	615	1570	2430	1430	1460	1560
11	415	325	333	338	341	347	615	1600	3300	1440	1460	1560
12	401	327	332	338	333	353	615	1590	3830	1440	1470	1560
13	386	323	335	336	342	350	609	2060	3360	1440	1470	1560
14	405	330	335	337	338	345	647	1310	3310	1440	1480	1560
15	405	326	329	341	340	347	693	1080	2380	1440	1470	963
16	409	330	330	339	345	346	699	1230	2530	1440	1490	742
17	408	334	333	340	337	344	688	1770	2500	1430	1490	730
18	410	339	332	338	346	347	693	2410	3200	1440	1490	736
19	415	335	333	330	346	343	693	2720	3800	1440	1490	736
20	411	337	334	332	345	350	688	2910	3990	1450	1500	736
21	409	338	335	337	341	343	652	4050	4090	1450	1510	742
22	409	329	345	341	344	347	594	4680	3970	1440	1510	584
23	412	339	338	335	345	343	599	5130	3340	1440	1510	564
24	411	336	334	337	343	343	594	4700	3180	1450	1510	399
25	411	337	332	354	342	339	599	3870	2580	1450	1510	286
26	413	340	335	345	338	339	589	3250	2780	1450	1510	283
27	416	336	334	340	342	343	589	3260	2330	1450	1510	283
28	412	337	337	345	344	347	584	2470	2340	1450	1530	283
29	317	337	331	343	345	339	609	2670	2330	1450	1530	279
30	316	305	328	343	---	343	615	2590	1800	1450	1530	279
31	275	---	349	363	---	327	---	2280	---	1420	1480	---
TOTAL	12315	9839	10353	10508	9961	10694	18233	66007	82990	49160	46030	30265
MEAN	397	328	334	339	343	345	608	2129	2766	1586	1485	1009
MAX	416	340	349	363	383	356	699	5130	4090	2420	1530	1560
MIN	275	305	328	325	333	327	339	609	1800	1420	1450	279
AC-FT	24430	19520	20540	20840	19760	21210	36170	130900	164600	97510	91300	60030

CAL YR 1979 TOTAL 281394 MEAN 771 MAX 3000 MIN 191 AC-FT 558100
WTR YR 1980 TOTAL 356355 MEAN 974 MAX 5130 MIN 275 AC-FT 706800

13194000 ARROWROCK RESERVOIR AT ARROWROCK DAM, ID

LOCATION.--Lat 43°35'40", long 115°55'19", in E½ sec.13, T.3 N., R.4 E., Elmore County, Hydrologic Unit 17050112, Boise National Forest, at Arrowrock Dam on Boise River, 14 mi (23 km) east of Boise, and at mile 75.4 (121.3 km).

DRAINAGE AREA.--2,210 mi² (5,724 km²), approximately.

PERIOD OF RECORD.--October 1917 to current year. Published as "at Arrowrock" October 1917 to September 1962.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Water and Power Resources Service).

REMARKS.--Reservoir is formed by gravity-section concrete-arch dam completed in 1915 and raised 5 ft (1.5 m) in 1937; storage began in 1915. Controlled capacity, 286,600 acre-ft (353 hm³) between elevations 2,974 ft (906.5 m) and 3,216 ft (980.2 m) at highest position of movable crest of spillway and 9.5 ft (2.90 m) above sluice gate sill. Silt deposition at dam has raised the lower storage level and decreased the capacity of the reservoir. Prior to Oct. 1, 1952, contents in publications of the Geological Survey applied from original capacity table and no silt corrections were made. Beginning Oct. 1, 1952, contents applied from revised table, which is the original table reduced by amounts varying from 347 acre-ft (0.428 hm³) at elevation 2,974 ft (906.5 m) to 5,000 acre-ft (6.16 hm³) at elevation 3,085 ft (940.3 m) and above. Water is used for irrigation in Boise Valley.

COOPERATION.--Gage readings and capacity table furnished by Water and Power Resources Service.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 301,200 acre-ft (371 hm³) May 29, 1948, elevation, 3,219.1 ft (981.18 m); no usable contents during period in each of several years when sluice gates were open and natural flow was passing through reservoir.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 286,600 acre-ft (353 hm³) June 19, 27, 28, elevation, 3,216.00 ft (980.237 m); minimum observed, 38,000 acre-ft (46.9 hm³) Oct. 9, elevation, 3,089.42 ft (941.655 m).

Capacity table (elevation, in feet, and contents, in acre-feet)

3080.0	30000	3150.0	126000
3100.0	49000	3180.0	189500
3120.0	75000	3216.0	286600

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41200	77300	117300	160900	220200	280500	279000	283600	283300	285600	203900	76200
2	40800	78700	118900	162300	221900	280500	279000	283000	283300	286100	199800	73100
3	40300	80100	120500	163700	222300	280500	278900	283300	283400	286000	195800	75200
4	39900	81500	122300	165100	225300	280500	279200	283800	282800	286200	191500	79500
5	39500	82900	123900	166600	227100	280700	279200	284100	282500	285800	186300	83600
6	39100	84400	125500	168100	228500	280800	279200	284700	282000	284600	180900	87900
7	38700	85800	127000	169600	229900	280600	280100	284900	281800	284600	177000	92000
8	38300	87200	128500	170900	231400	280400	280200	284700	281600	286500	173400	96100
9	38000	88600	130000	172300	232900	280200	280600	284700	281200	285200	169800	100100
10	39300	89900	132000	173900	234300	279900	280700	284900	281800	283800	166100	104200
11	40900	91200	133000	175400	235800	279700	280800	284700	285300	281000	161300	108600
12	42300	92700	134200	177400	237200	279700	281000	283200	286400	277400	156400	113100
13	43800	94100	135400	179600	238500	279500	281100	282300	286400	274300	151600	117400
14	45200	95100	136800	181800	240100	279400	281900	284900	285500	270200	147100	121500
15	46600	96500	138200	186000	241800	279400	283200	284800	285000	266900	142700	127000
16	48100	97800	139600	188000	243700	279400	284600	284700	283400	263700	138300	131300
17	49800	99200	141000	191300	245700	279300	282900	284900	283300	260200	134000	133200
18	51400	100600	142100	194400	247800	279200	282600	285100	286000	256700	130200	134900
19	53200	102000	143500	197000	249700	279200	283400	286000	286600	254000	126200	137100
20	55200	103100	144800	199500	255800	279200	285000	284600	285000	251500	121800	139000
21	57300	104200	146200	202100	260600	279200	284000	284800	285300	247600	117900	142600
22	59400	104700	147600	204000	264300	279200	283700	284900	286000	243700	113400	145300
23	61100	105500	149100	205800	267300	279200	283400	285800	286000	239300	109500	147700
24	62800	107300	150500	207500	270300	279200	283900	284700	284600	235300	105600	149900
25	64500	109400	152000	209200	273300	279200	284800	282400	285400	232330	101900	151800
26	67500	111400	153400	210800	276400	279200	284300	282000	285200	229700	97400	153500
27	69300	112800	154700	212500	278900	279400	283900	284100	286600	225800	93300	155000
28	71100	113900	155900	214100	279400	279400	283900	284800	286600	221400	89300	156400
29	72900	115300	157000	215400	279900	279300	284400	284000	286500	216900	85900	157600
30	74400	115800	158100	216100	---	279200	284500	283810	286100	212500	82800	159100
31	75800	---	159300	218300	---	279200	---	283500	---	208200	80100	---
MAX	75800	115800	159300	218300	279900	280800	285000	286000	286600	286500	203900	159100
MIN	38000	77300	117300	160900	220200	279200	278900	282000	281200	208200	80100	73100
(†)	3120.56	3144.60	3166.33	3191.65	3213.80	3213.57	3215.33	3215.00	3215.83	3187.69	3123.37	3166.22
(‡)	+34100	+40000	+43500	+59000	+61600	-700	+5300	-1000	+2600	-77900	-128100	+79000

CAL YR................‡ -18600
WTR YR................‡ +117400

†Elevation, in feet, at end of month.
‡Change in contents, in acre-feet, at end of month.

13200000 MORES CREEK ABOVE ROBIE CREEK, NEAR ARROWROCK DAM, ID

LOCATION.--Lat 43°38'53", long 115°59'20", in SE¼SW¼ sec.28, T.4 N., R.4 E., Boise County, Hydrologic Unit 17050112, on left bank at State roadside park, 1.7 mi (2.7 km) upstream from Robie Creek, 5.0 mi (8.0 km) northwest of Arrowrock Dam, and at mile 5.8 (9.3 km).

DRAINAGE AREA.--399 mi² (1,033 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1950 to current year. Prior to October 1958, published as Moore Creek above Robie Creek, near Arrowrock, and October 1958 to September 1962, published as "near Arrowrock."

GAGE.--Water-stage recorder. Altitude of gage is 3,120 ft (951 m), from topographic map.

REMARKS.--Records good. Small diversions above station for irrigation.

AVERAGE DISCHARGE.--30 years, 295 ft³/s (8.354 m³/s), 10.04 in/yr (255 mm/yr), 213,700 acre-ft/yr (263 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,440 ft³/s (154 m³/s) Dec. 23, 1955, gage height, 9.55 ft (2.911 m); minimum, 7.4 ft³/s (0.210 m³/s) Aug. 18, 19, 1977, gage height, 1.71 ft (0.521 m).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 800 ft³/s (22.7 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 20	0730	1040	29.5	4.94	1.506	Apr. 24	2330	*1890	53.5	6.18	1.884

Minimum discharge, 23 ft³/s (0.65 m³/s) Nov. 20, gage height, 1.99 ft (0.607 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 27 to Dec. 8, Dec. 28, Jan. 29)

2.0	25	3.6	388
2.4	72	4.0	567
2.8	138	5.0	1110
3.2	244	6.0	1790

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	63	94	100	133	478	341	1070	738	259	69	40
2	28	61	98	83	139	487	333	1060	824	250	67	40
3	27	58	102	76	133	492	326	1070	738	273	63	45
4	27	62	98	74	125	520	330	1060	697	253	62	43
5	27	66	95	97	110	543	388	1040	672	228	60	40
6	27	65	90	112	109	501	469	1060	637	207	57	36
7	27	63	89	79	100	451	421	1080	596	193	55	35
8	28	60	86	97	99	409	396	1060	567	182	53	37
9	28	58	79	100	97	380	434	1080	557	173	51	44
10	28	57	79	104	94	380	506	991	567	158	51	56
11	30	54	48	89	94	417	478	917	572	149	49	107
12	30	51	85	97	96	384	515	834	601	141	47	89
13	30	52	99	190	99	356	611	770	601	135	45	85
14	30	53	99	396	102	425	759	723	557	135	43	101
15	34	54	99	553	107	538	894	712	520	137	42	83
16	47	62	91	425	112	456	979	759	483	129	45	70
17	46	61	82	337	173	425	1060	697	469	119	44	62
18	46	63	82	266	501	434	1250	687	469	114	46	60
19	112	57	83	190	917	396	1430	677	469	110	49	67
20	109	38	83	156	1000	384	1560	687	465	105	49	66
21	79	65	80	168	861	417	1640	712	451	102	46	72
22	69	91	74	163	642	409	1500	754	443	97	43	70
23	80	114	69	147	511	425	1480	861	425	91	43	65
24	80	127	92	137	425	400	1740	780	400	86	42	61
25	73	125	82	131	384	392	1680	743	364	82	41	58
26	79	104	80	117	376	388	1380	824	341	79	39	57
27	79	74	70	105	392	368	1290	808	318	76	39	56
28	74	48	60	80	434	360	1310	775	297	72	38	53
29	73	70	61	77	469	360	1330	764	276	70	39	52
30	67	90	79	79	---	372	1210	770	269	72	40	52
31	65	---	97	92	---	345	---	738	---	69	40	---
TOTAL	1608	2066	2605	4917	8834	13112	28040	26563	15383	4346	1497	1802
MEAN	51.9	68.9	84.0	159	305	423	935	857	513	140	48.3	60.1
MAX	112	127	102	553	1000	543	1740	1080	824	273	69	107
MIN	27	38	48	74	94	345	326	677	269	69	38	35
CFSM	.13	.17	.21	.40	.76	1.06	2.34	2.15	1.29	.35	.12	.15
IN.	.15	.19	.24	.46	.82	1.22	2.61	2.48	1.43	.41	.14	.17
AC-FT	3190	4100	5170	9750	17520	26010	55620	52690	30510	8620	2970	3570

CAL YR 1979 TOTAL 54266 MEAN 149 MAX 591 MIN 16 CFSM .37 IN 5.06 AC-FT 107600
WTR YR 1980 TOTAL 110773 MEAN 303 MAX 1740 MIN 27 CFSM .76 IN 10.33 AC-FT 219700

13200000 MORES CREEK ABOVE ROBIE CREEK, NEAR ARROWROCK DAM, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.
PERIOD OF DAILY RECORD.--December 1964 to July 1972 (discontinued).
REMARKS.--Miscellaneous chemical data published for water years 1973-74.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT
OCT 17...	1105	45	70	--	11.5	9.0	--	--	--	--	--	--
DEC 03...	1515	102	106	--	4.5	.5	--	--	--	--	--	--
JAN 08...	1045	98	128	7.3	-3.0	.0	44	0	14	2.1	6.8	25
FEB 21...	1436	809	96	--	1.0	2.5	--	--	--	--	--	--
APR 15...	1320	941	71	--	14.5	7.0	--	--	--	--	--	--
MAY 07...	1350	1090	52	--	18.0	9.0	--	--	--	--	--	--
JUN 27...	1355	326	65	6.5	20.0	12.0	23	0	7.2	1.1	3.4	24
JUL 29...	1200	70	93	--	27.0	20.5	--	--	--	--	--	--
SEP 10...	1715	61	108	--	21.0	18.0	--	--	--	--	--	--

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 17...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 03...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 08...	.4	.9	53	6.3	2.2	.3	18	83	.11	22.0	.20	.060
FEB 21...	--	--	--	--	--	--	--	--	--	--	--	--
APR 15...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 07...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 27...	.3	.4	31	.6	.1	.1	16	48	.07	42.2	.01	.010
JUL 29...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 10...	--	--	--	--	--	--	--	--	--	--	--	--

13201500 LUCKY PEAK LAKE NEAR BOISE, ID

LOCATION.--Lat 43°31'31", long 116°03'15", in SW¼NW¼ sec.12, T.2 N., R.3 E., Ada County, Hydrologic Unit 17050112, at outlet control tower at Lucky Peak Dam on Boise River, 2 mi (3 km) upstream from diversion dam for New York Canal, 7 mi (11 km) downstream from Mores Creek, 9 mi (14 km) southeast of Boise, and at mile 63.8 (102.7 km).

DRAINAGE AREA.--2,680 mi² (6,940 km²), approximately.

PERIOD OF RECORD.--October 1954 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers). Prior to May 13, 1955, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by earth-fill dam. Storage began Oct. 16, 1954. Dam completed in February 1955. Capacity, 307,040 acre-ft (378.6 hm³) between elevations 2,827.0 ft (861.67 m), sill of outlet gates, and 3,060.0 ft (932.69 m), spillway crest. Minimum proposed operating level, 2,905.0 ft (885.44 m), 28,770 acre-ft (35.5 hm³), but all storage can be released. Water is stored for flood control and irrigation of lands in Boise valley.

COOPERATION.--Gage-height record and capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 305,130 acre-ft (376 hm³) June 25, 1955, elevation, 3,059.32 ft (932.481 m); minimum since near-full capacity was attained on June 25, 1955, 28,630 acre-ft (35.3 hm³) Dec. 21, 1961, elevation, 2,904.83 ft (885.392 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 297,000 acre-ft (366 hm³) July 5, elevation, 3,056.39 ft (931.588 m); minimum, 51,800 acre-ft (63.9 hm³) Oct. 1, elevation, 2,929.22 ft (892.826 m).

Capacity table (elevation, in feet, and contents, in acre-feet)

2,920.0	42,200	3,000.0	162,800
2,930.0	52,700	3,020.0	205,600
2,940.0	64,600	3,040.0	253,600
2,960.0	92,400	3,060.0	307,000
2,980.0	125,100		

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51800	56300	54500	54100	60700	78800	121600	237000	276300	295900	293700	292400
2	52700	56300	54500	54000	60900	80700	122600	235900	276900	296200	293400	288900
3	53400	56200	54600	54000	61000	82600	123500	235200	276900	296600	293100	282600
4	54300	56200	54600	54000	61200	84600	124600	235100	275700	296900	293400	276000
5	55100	56200	54700	54100	61300	86600	125800	234900	273700	296700	294700	269500
6	56000	56100	54800	54200	61400	88600	127400	234400	271100	296600	294800	262800
7	56800	56100	54800	53900	61500	90200	129000	233600	268300	294100	294400	256400
8	57700	56000	54800	54100	61600	91600	130500	232200	265100	292700	293800	250200
9	57900	56000	54900	54100	61700	93300	132100	231500	261900	292500	293100	243700
10	57300	55900	54800	54200	61700	94700	133900	230700	259800	292900	293400	237500
11	56900	55800	54800	54300	61800	96100	135500	228900	261500	293700	293900	231500
12	56500	55800	54700	54300	61800	97400	137100	225700	267800	294400	294300	225600
13	56100	55700	54700	54600	61900	98500	138800	219800	273000	295000	294600	220200
14	55800	55600	54600	55400	62000	99700	140600	214600	277300	295600	294600	214900
15	55600	55500	54500	56700	62100	101200	142300	211000	280500	295700	294600	209700
16	55600	55400	54600	57600	62200	102600	146700	208900	282000	295800	294500	204700
17	55700	55300	54500	58300	62500	103900	151600	207600	281700	295800	294100	199700
18	55900	55300	54500	58700	63500	105200	157100	206600	283200	295400	293600	194900
19	56000	55300	54400	59000	65400	106400	163700	208900	290600	294400	293000	190100
20	56100	55200	54400	59400	67500	107500	173600	211700	294000	294200	293000	185400
21	56100	55000	54300	59700	69300	108900	183900	218700	294700	294600	293400	181000
22	56100	54900	54300	59900	70600	110000	192800	229900	295000	295000	293600	176500
23	56100	54900	54300	60100	72000	111200	201100	243500	294800	295400	293500	172000
24	56200	54900	54300	60300	72800	112500	211400	255400	292100	295000	293100	167500
25	56300	54900	54300	60400	72900	113400	222000	263200	292300	293700	293200	163100
26	56300	54900	54300	60600	72600	115000	228600	266800	293800	293100	293500	158500
27	56300	54900	54300	60700	73300	116200	232300	269500	294900	293400	293600	154100
28	56300	54700	54200	60700	75200	117400	235000	272300	295000	293600	293400	149500
29	56400	54600	54200	60700	76900	118500	236800	274400	295100	293800	293000	145100
30	56400	54500	54100	60700	---	119600	237600	275600	295300	293900	292500	141300
31	56400	---	54100	60700	---	120600	---	276100	---	293800	292300	---
MAX	57900	56300	54900	60700	76900	120600	237600	276100	295300	296900	294800	292400
MIN	51800	54500	54100	53900	60700	78800	121600	206600	259800	292500	292300	141300
(†)	2933.20	2931.59	2931.20	2936.82	2949.34	2977.44	3033.57	3048.69	3055.77	3055.25	3054.71	2988.93
(‡)	+3100	-1900	-400	+6600	+16200	+43700	+117000	+38500	+19200	-1500	-1500	-151000

CAL YR 1979............ ‡ -43700
WTR YR 1980............ ‡ +88000

†Elevation, in feet, at end of month.
‡Change in contents, in acre-feet.

13202000 BOISE RIVER NEAR BOISE, ID

LOCATION.--Lat 43°31'40", long 116°03'31", in NE¼ sec.11, T.2 N., R.3 E., Ada County, Hydrologic Unit 17050112, at gate-control house at outlet works of Lucky Peak Lake, 1.8 mi (2.9 km) upstream from diversion dam for New York Canal, 7.5 mi (12.1 km) downstream from mouth of Mores Creek, 9 mi (14.5 km) southeast of Boise, and at mile 63.6 (102.3 km).

DRAINAGE AREA.--2,680 mi^2 (6,940 km^2), approximately. Mean altitude, 5,910 ft (1,801 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1895 to September 1916 (no winter records 1904-5, 1907), November 1950 to September 1954 (discharge measurements only), October 1954 to current year. Published as "near Highland" 1905-15 and as "below Moore Creek, near Arrowrock" 1916.

REVISED RECORDS.--WSP 1347: 1895-1901, 1904.

GAGE.--Remote gate-opening recorder and nonrecording gage on each of six slide gates, remote recorder and nonrecording gage on hollow-jet valve, and remote water-stage recorder on Lucky Peak Lake. Elevation of sills of six slide gates, 2,827.0 ft (861.670 m), levels by Corps of Engineers. Prior to Mar. 18, 1905, nonrecording gages at sites about 1 mi (1.6 km) downstream at different datums. Mar. 18, 1905, to Mar. 20, 1915, nonrecording gages, and Mar. 21, 1915, to Sept. 30, 1916, water-stage recorders at sites 5 to 7 mi (8 to 11 km) upstream at different datums.

REMARKS.--Records good. Daily discharge computed from relations between discharge, head, and gate openings adjusted on the basis of current-meter measurements. Unadjusted discharges furnished by U.S. Corps of Engineers. Flow regulated by Lucky Peak Lake (see sta 13201500), Arrowrock Reservoir (see sta 13194000), and Anderson Ranch Reservoir (see sta 13190000). Diversions above station for irrigation of about 2,300 acres (931 hm^3) in the basin and about 5,000 acres (2,020 hm^2) outside the basin near Mountain Home (1966 determination).

COOPERATION.--Records of gate operation, discharge, stage in Lucky Peak Lake, and gate rating curves furnished by Corps of Engineers.

AVERAGE DISCHARGE.--43 years (1896, 1898-1903, 1906, 1908-16, 1955-80), 2.942 ft^3/s (83.32 m^3/s), 2,131,000 acre-ft/yr (2,628 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 35,500 ft^3/s (1,010 m^3/s) June 14, 1896; no flow on several days in 1954, 1955, 1957-59, 1961, 1969, 1974, 1978, 1980 when gates were closed.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 9,180 ft^3/s (260 m^3/s) June 22, 23; minimum, no flow Oct. 16, 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1650	111	111	111	103	1120	1170	7650	6630	5100	4510	3690
2	612	111	111	111	103	1120	1170	7650	6630	5240	4510	3630
3	578	111	111	111	103	1160	1170	7650	6630	5300	4510	3550
4	561	111	111	111	103	1170	1170	7650	6970	5300	4450	3470
5	561	111	111	111	103	1170	1170	7990	7140	5300	4410	3430
6	561	111	111	111	103	1170	1170	8500	7140	4900	4380	3420
7	561	111	111	245	104	1170	1170	8670	7140	4690	4350	3420
8	493	111	111	28	104	1170	1170	8670	7140	4690	4340	3370
9	459	111	111	95	104	1170	1170	8670	6980	4620	4360	3350
10	323	111	111	100	104	1170	1170	8670	6120	4660	4370	3330
11	255	111	111	100	104	1170	1350	8670	5610	4690	4370	3260
12	255	111	111	100	104	1170	1380	8670	5610	4670	4370	3120
13	255	111	111	100	104	1170	1460	8670	5610	4660	4340	2940
14	255	111	111	101	104	1170	1680	8330	5610	4640	4320	2870
15	93	111	111	101	105	1170	2110	7480	5610	4610	4300	2770
16	.00	111	111	101	105	1170	2310	6460	5610	4600	4290	2690
17	.00	111	111	101	105	1170	2370	6120	5610	4580	4290	2640
18	37	111	111	101	105	1170	2310	6120	5610	4570	4290	2590
19	111	111	111	101	102	1170	2350	6120	5820	4550	4240	2490
20	111	111	111	101	100	1170	2550	6120	7370	4540	4160	2470
21	111	111	111	101	100	1170	2860	5100	8630	4520	4130	2410
22	111	111	111	102	100	1170	3200	4590	9180	4510	4130	2370
23	111	111	111	102	100	1170	3450	5100	9180	4510	4130	2370
24	111	111	111	102	100	1170	3180	5610	8540	4510	4130	2370
25	111	111	111	102	518	1170	3200	5610	6380	4510	4060	2370
26	111	111	111	102	544	1170	4500	5940	5100	4510	4010	2370
27	111	111	111	102	816	1170	5780	6120	5440	4510	3920	2370
28	111	111	111	102	986	1170	6460	6120	5610	4510	3840	2370
29	111	111	111	102	1090	1170	7310	6120	5610	4510	3760	2370
30	111	111	111	103	---	1170	7650	6460	5280	4510	3740	2370
31	111	---	111	103	---	1170	---	6630	---	4510	3750	---
TOTAL	8952.00	3330	3441	3264	6426	36160	79160	217930	195540	145530	130760	86240
MEAN	289	111	111	105	222	1166	2639	7030	6518	4695	4218	2875
MAX	1650	111	111	245	1090	1170	7650	8670	9180	5300	4510	3690
MIN	.00	111	111	28	100	1120	1170	4590	5100	4510	3740	2370
AC-FT	17760	6610	6830	6470	12750	71720	157000	432300	387900	288700	259400	171100

CAL YR 1979 TOTAL 704792.00 MEAN 1931 MAX 4820 MIN .00 AC-FT 1398000
WTR YR 1980 TOTAL 916733.00 MEAN 2505 MAX 9180 MIN .00 AC-FT 1818000

13202000 BOISE RIVER NEAR BOISE, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966-77, October 1978 to September 1979.

REMARKS.--Miscellaneous chemical data published for water years 1968-69, 1972, 1974.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT
DEC 04...	1225	111	97	8.0	6.0	6.0	37	0	12	1.6	5.2	27
JAN 09...	1430	102	95	--	2.5	2.5	--	--	--	--	--	--
FEB 19...	1315	110	114	--	5.5	6.0	--	--	--	--	--	--
MAY 01...	1340	7630	83	--	16.5	8.5	--	--	--	--	--	--
JUL 17...	1200	4580	64	8.2	21.0	14.5	25	0	8.3	1.0	3.2	21

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
DEC 04...	.4	.7	40	4.0	.9	.2	12	62	.08	18.6	.25	.010
JAN 09...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 19...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 01...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 17...	.3	.5	27	1.7	.5	.3	11	43	.06	532	.07	.030

13204500 DIVERSIONS FROM BOISE RIVER BETWEEN NEAR BOISE AND AT BOISE GAGING STATIONS, ID

Between near Boise and at Boise gaging stations (prior to 1955 water year, published as between Dowling Ranch and Boise gaging stations), six principal canals and several small farm laterals divert water from Boise River for irrigation.

Records of total diversion during April to September for each canal for years 1919-46, combined daily diversion covering period April to September for years 1947-67, combined daily diversions for water years 1968-75 and daily flow of New York Canal February 1939 to October 1948 are published in reports of Geological Survey. Records of daily diversion for each canal from 1916-80 are on file in office of the Idaho Department of Water Resources. Prior to October 1967, there was no record of October to March diversions except for New York Canal. Miscellaneous diversions or pumping from Boise River above "at Boise" was reported by watermaster to be approximately as follows in acre-ft (m³): October, 191 (236,000); April, 106 (131,000); May, 290 (358,000); June, 295 (364,000); July, 474 (584,000); August, 529 (652,000); and September, 365 (450,000).

Records show summation of discharge for the recorded diversions. Staff gages on canals are read daily or several times weekly and discharge measurements are made weekly. Records furnished by watermaster for Boise River.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2670	.00	.00	.00	.00	1000	1050	2450	1880	3240	3250	2800
2	183	.00	.00	.00	.00	1000	1050	2530	1840	3240	3250	2700
3	27	.00	.00	.00	.00	1000	1050	2660	1820	3260	3250	2690
4	27	.00	.00	.00	.00	1050	1050	2690	1910	3280	3240	2680
5	26	.00	.00	.00	.00	1050	1050	2680	1990	3270	3170	2710
6	28	.00	.00	.00	.00	1050	1050	2950	2100	3280	3160	2710
7	28	.00	.00	.00	.00	1050	1050	3080	2080	3280	3170	2710
8	25	.00	.00	.00	.00	1050	1050	3050	2100	3280	3190	2690
9	25	.00	.00	.00	.00	1050	1050	3020	2120	3280	3190	2670
10	26	.00	.00	.00	.00	1050	855	3040	2220	3280	3190	2670
11	26	.00	.00	.00	.00	1050	963	3040	2420	3310	3190	2670
12	27	.00	.00	.00	.00	1050	931	3020	2620	3300	3190	2650
13	26	.00	.00	.00	.00	1050	937	3020	2870	3300	3190	2540
14	25	.00	.00	.00	.00	1050	1170	3020	2980	3310	3200	2360
15	25	.00	.00	.00	.00	1050	1330	3040	2980	3300	3200	2350
16	.00	.00	.00	.00	.00	1050	1550	2970	2990	3290	3170	2240
17	.00	.00	.00	.00	.00	1050	1550	2820	3100	3310	3170	2220
18	.00	.00	.00	.00	.00	1050	1350	2860	3200	3340	3170	2220
19	.00	.00	.00	.00	.00	1050	1370	2900	3270	3330	3160	2160
20	.00	.00	.00	.00	.00	1050	1510	2900	3100	3330	3110	2100
21	.00	.00	.00	.00	.00	1050	1650	3010	3170	3330	3050	2100
22	.00	.00	.00	.00	.00	1050	1850	3010	3170	3320	3100	2040
23	.00	.00	.00	.00	.00	1050	2070	3040	3190	3320	3100	2070
24	.00	.00	.00	.00	.00	1050	2190	3060	3220	3320	3110	2070
25	.00	.00	.00	.00	.00	1050	1970	3040	3220	3280	3110	2070
26	.00	.00	.00	.00	508	1050	2210	2920	3250	3280	2990	2060
27	.00	.00	.00	.00	500	1050	2270	2680	3250	3280	2990	2060
28	.00	.00	.00	.00	800	1050	2290	2520	3240	3290	2910	2070
29	.00	.00	.00	.00	900	1050	2340	2240	3250	3290	2860	2060
30	.00	.00	.00	.00	---	1050	2400	1980	3240	3290	2800	2060
31	.00	---	.00	.00	---	1050	---	1870	---	3290	2800	---
TOTAL	3194.00	.00	.00	.00	2708.00	32400	44206	87110	81790	102100	96630	71200
MEAN	103	.000	.000	.000	93.4	1045	1474	2810	2726	3294	3117	2373
MAX	2670	.00	.00	.00	900	1050	2400	3080	3270	3340	3250	2800
MIN	.00	.00	.00	.00	.00	1000	855	1870	1820	3240	2800	2040
AC-FT	6340	.00	.00	.00	5370	64270	87680	172800	162200	202500	191700	141200

CAL YR 1979 TOTAL 508509.00 MEAN 1393 MAX 3360 MIN .00 AC-FT 1009000
WTR YR 1980 TOTAL 521338.00 MEAN 1424 MAX 3340 MIN .00 AC-FT 1034000

13205500 BOISE RIVER AT BOISE, ID

LOCATION.--Lat 43°36'33", long 116°12'27", in NE¼SW¼ sec.10, T.3 N., R.2 E., Ada County, Hydrologic Unit 17050114, on right bank at Capitol Boulevard Bridge at Boise and at mile 52.8 (85.0 km).

DRAINAGE AREA.--2,760 mi^2 (7,150 km^2), approximately.

PERIOD OF RECORD.--March 1938 to September 1939 (gage heights only), February 1940 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,675.46 ft (815.480 m) datum of Corps of Engineers, Boise River Surveys. Prior to Apr. 30, 1943, at site 1 mi (1.6 m) upstream at datum 13.69 ft (4.173 m) higher. Apr. 30 to July 10, 1943, at site 400 ft (120 m) downstream at present datum.

REMARKS.--Records good. Flow regulated by Anderson Ranch Reservoir (see sta 13190000), Arrowrock Reservoir (see sta 13194000), and Lucky Peak Lake (see sta 13201500). New York, Ridenbaugh, and four small canals (see sta 13204500) divert between station near Boise and this station. Diversions above station for irrigation of about 203,000 acres (82,200 hm^2) of which about 5,000 acres (2,020 hm^2) are outside the basin near Mountain Home, about 130,000 acres (52,600 hm^2) are inside the basin below station, and about 50,000 acres (20,200 hm^2) are outside the basin near Lake Lowell.

AVERAGE DISCHARGE.--26 years (1955-80), 1,295 ft^3/s (36.67 m^3/s), 938,200 acre-ft/yr (1,157 hm^3/yr), since completion of Lucky Peak Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,000 ft^3/s (595 m^3/s) Apr. 20, 1943, gage height, 10.00 ft (3.048 m), site and datum then in use; minimum, 1.3 ft^3/s (0.037 m^3/s) Feb. 3, 1955, gage height, 2.21 ft (0.674 m); minimum daily, 3.5 ft^3/s (0.099 m^3/s) Jan. 19-23, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,650 ft^3/s (160 m^3/s) June 22-23, gage height, 6.73 ft (2.051 m); minimum, 88 ft^3/s (2.49 m^3/s) Jan. 11, gage height, 2.17 ft (0.661 m).

Rating tables (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 27 to May 20, May 24 to June 10, June 20-24;
stage-discharge relation affected by ice Jan. 27 to Feb. 1)

Oct. 1 to Apr. 19				Apr. 20 to Sept. 30			
2.2	100	3.0	677	2.8	351	4.0	1920
2.4	191	3.3	1040	3.0	551	5.0	3430
2.7	391			3.5	1220	6.5	5750

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	643	120	112	116	110	190	140	4960	4620	1850	1300	968
2	633	120	120	116	108	196	136	5000	4620	1920	1300	968
3	601	116	120	116	100	124	136	4950	4580	2000	1300	940
4	570	112	112	120	112	124	132	4840	4730	1990	1300	856
5	580	112	116	124	108	120	132	4980	4870	1960	1290	787
6	570	112	116	116	112	116	132	5290	4840	1650	1280	774
7	570	116	116	140	112	112	132	5350	4860	1440	1230	774
8	541	116	116	155	112	112	128	5380	4840	1460	1220	774
9	458	112	112	136	116	112	165	5480	4670	1430	1230	761
10	345	112	112	124	116	108	256	5370	3760	1420	1230	761
11	269	108	112	116	120	112	289	5400	3040	1440	1230	590
12	282	112	112	120	116	112	432	5440	2870	1430	1250	585
13	276	112	112	120	116	108	407	5350	2780	1430	1230	585
14	276	108	112	128	116	108	424	5040	2740	1420	1220	540
15	244	108	112	140	116	116	698	4300	2740	1390	1210	490
16	196	108	106	132	116	108	814	3400	2710	1370	1190	450
17	190	108	112	140	120	108	886	2980	2600	1350	1190	420
18	190	112	108	128	132	120	975	2950	2530	1350	1180	420
19	150	108	108	124	136	112	1000	2930	2600	1330	1160	420
20	140	108	112	128	140	120	1010	2840	3820	1320	1150	375
21	132	108	112	124	150	150	1020	2000	4960	1300	1140	360
22	128	108	112	124	150	150	1160	1500	5620	1290	1140	360
23	128	124	108	124	150	160	1250	1820	5600	1290	1140	360
24	128	116	112	120	150	160	1210	2440	5090	1290	1110	360
25	128	116	116	120	136	155	1210	2470	3230	1290	1110	360
26	124	116	116	120	140	155	1840	2980	1840	1290	1110	360
27	124	112	120	108	112	160	3180	3430	2090	1290	1080	360
28	124	108	116	100	108	150	3900	3620	2300	1290	1040	360
29	120	108	116	110	124	145	4610	3860	2300	1290	996	360
30	116	112	116	108	---	140	5000	4330	2080	1300	982	360
31	116	---	116	110	---	140	---	4610	---	1300	968	---
TOTAL	9092	3368	3520	3807	3554	4103	32804	125290	109930	45170	36506	16838
MEAN	293	112	114	123	123	132	1093	4042	3664	1457	1178	561
MAX	643	124	120	155	150	196	5000	5480	5620	2000	1300	968
MIN	116	108	108	100	100	108	128	1500	1840	1290	968	360
AC-FT	18030	6680	6980	7550	7050	8140	65070	248500	218000	89590	72410	33400

CAL YR 1979 TOTAL 209533 MEAN 574 MAX 1560 MIN 108 AC-FT 415600
WTR YR 1980 TOTAL 393982 MEAN 1076 MAX 5620 MIN 100 AC-FT 781500

13205633 CRANE CREEK AT 1206 RANCH ROAD AT BOISE, ID

LOCATION.--Lat 43°38'48", long 116°12'01", in NW¼NW¼NE¼ sec. 34, T.4 N., R.2 E., Ada County, Hydrologic Unit 17050114, at private driveway crossing at 1206 Ranch Road, Highlands subdivision, 1.8 mi (2.9 km) north-northwest of Federal Building and 2.1 mi (3.4 km) upstream from mouth.

DRAINAGE AREA.--7.21 mi² (18.67 km²).

PERIOD OF RECORD.--October 1979 to September 1980.

GAGE.--Nonrecording gage, staff and crest-stage gage. Datum of gage 2,790 ft (850 m), from topographic map.

REMARKS.--Records fair except those above 10 ft³/s (0.28 m³/s), which are poor. Ponds upstream may affect extremes.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 23 ft³/s (0.65 m³/s) Apr. 24, gage height, 3.38 ft (1.030 m); minimum daily, 0.21 ft³/s (5.95 dm³/s) Dec. 28-30.

Rating table (gage height, in feet, and discharge, in cubic feet per second)

1.54	0.21	2.0	3.6
1.6	.44	2.5	9.5
1.7	1.0	3.0	17
1.8	1.8		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.83	.31	.27	.65	.65	7.4	7.0	2.3	7.4	1.0	.31	.44
2	.31	.31	.27	.65	.65	5.8	7.0	2.3	6.7	1.0	.31	.54
3	.31	.31	.76	1.3	1.3	5.6	5.8	2.7	6.5	1.0	.31	.44
4	1.1	.31	.24	1.3	.44	4.7	7.0	2.7	6.5	.89	.39	.44
5	.39	.27	.24	1.3	.44	6.4	7.0	1.8	6.2	.89	.39	.44
6	.24	.27	.24	.21	.65	4.7	8.2	2.1	4.7	.39	.39	.44
7	.31	.27	.24	.21	.65	4.7	5.8	1.8	4.3	.49	.39	.44
8	.31	.27	.24	.24	.44	4.7	5.8	1.8	3.8	.49	.31	.44
9	.31	.27	.24	1.0	.44	3.6	5.8	3.6	3.6	.49	.31	.44
10	.31	.27	.24	.27	1.0	3.6	5.8	4.0	3.6	.39	.31	.70
11	.27	.27	.24	.76	1.0	3.6	5.8	4.2	3.4	.39	.31	1.7
12	.27	.27	.24	2.9	.65	4.5	4.7	2.9	3.2	.39	.31	1.0
13	.27	.27	.24	1.6	1.0	4.7	4.7	1.8	3.2	.39	.31	.44
14	.24	.27	.24	.89	1.0	4.7	4.7	2.0	2.7	.39	.31	.44
15	.76	.27	.24	2.6	1.0	4.7	7.0	2.7	2.3	.39	.31	.44
16	.24	.27	.24	4.2	1.0	2.7	5.8	2.1	2.1	.39	.31	.65
17	.24	.27	.24	4.2	1.0	2.7	4.9	2.1	1.8	.39	.27	1.0
18	.49	.49	.24	4.7	4.2	10	4.7	1.8	1.8	.39	.27	.44
19	.31	.27	.24	3.6	8.3	4.5	4.7	1.8	1.8	.39	.27	.44
20	.31	.27	.24	3.6	7.3	4.4	4.7	1.8	1.6	.39	.35	.44
21	.31	.27	.24	3.6	11	6.4	4.7	1.1	1.6	.39	.44	.44
22	.31	.27	.24	2.7	10	8.2	4.7	1.0	1.1	.39	.44	.44
23	.31	1.5	.24	1.8	11	9.5	5.1	2.1	1.0	.39	.44	.44
24	.31	.27	.24	1.5	10	9.5	10	2.9	1.0	.31	.44	.44
25	.54	.27	.70	1.5	8.4	9.5	7.0	4.5	.76	.31	.44	.44
26	.31	.27	.70	1.0	8.2	9.5	4.7	17	1.0	.31	.35	.44
27	.31	.27	.24	.44	8.2	9.5	4.3	12	1.0	.31	.44	.44
28	.31	.27	.21	.44	8.2	8.2	3.1	13	1.0	.31	.44	.44
29	.31	.27	.21	.44	7.7	8.2	3.1	12	1.0	.31	.44	.44
30	.31	.27	.21	.44	---	8.2	2.7	13	1.0	.31	.44	.44
31	.31	---	.65	.44	---	8.2	---	17	---	.31	.44	---
TOTAL	11.46	9.71	9.26	50.48	115.81	192.6	166.3	143.9	87.66	14.58	11.19	16.15
MEAN	.37	.32	.30	1.63	3.99	6.21	5.54	4.64	2.92	.47	.36	.54
MAX	1.1	1.5	.76	4.7	11	10	10	17	7.4	1.0	.44	1.7
MIN	.24	.27	.21	.21	.44	2.7	2.7	1.0	.76	.31	.27	.44
AC-FT	23	19	18	100	230	382	330	285	174	29	22	32

WTR YR 1980 TOTAL 829.10 MEAN 2.27 MAX 17 MIN .21 AC-FT 1640

13210050 BOISE RIVER NEAR MIDDLETON, ID

LOCATION.--Lat 43°41'06", long 116°34'22", in SE¼SE¼SE¼NE¼ sec.16, T.4 N., R.2 W., Canyon County Hydrologic Unit 17050114, on right bank 2.9 mi (4.7 km) southeast of Middleton and at mile 29.1 (46.8 km).

DRAINAGE AREA.--3,050 mi² (7,900 km²), approximately.

PERIOD OF RECORD.--December 1974 to current year (low-flow periods only).

GAGE.--Water-stage recorder. Datum of gage is 2,410 ft (735 m), from topographic map.

REMARKS.--Records good. Natural flow of stream affected by regulation of Lucky Peak Lake (see sta 13201500) and other upstream storage reservoirs, diversions above station for irrigation of about 296,000 acres (120,000 hm²), and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Minimum discharge, 38 ft³/s (1.08 m³/s) Sept. 4, 1977, gage height, 3.66 ft (1.116 m).

EXTREMES FOR CURRENT YEAR.--Minimum discharge, 143 ft³/s (4.05 m³/s) Oct. 1, gage height, 4.58 ft (1.396 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	155	260	237	231	226	304	315	---	---	893	257	212
2	217	260	243	228	223	371	308	---	---	906	271	217
3	204	257	271	226	231	308	300	---	---	1060	285	234
4	182	264	254	223	247	293	293	---	---	1100	282	217
5	180	267	250	237	234	293	296	---	---	1050	289	204
6	188	254	247	231	234	300	304	---	---	920	271	177
7	177	250	243	223	237	271	300	---	---	410	275	172
8	190	250	237	260	231	260	285	---	---	355	250	167
9	175	247	237	257	226	254	271	---	---	351	237	158
10	257	240	231	304	220	250	257	---	---	285	243	180
11	275	243	228	254	217	247	243	---	---	319	243	323
12	282	240	228	260	217	250	376	---	---	311	240	300
13	260	240	228	293	220	237	428	---	---	308	247	289
14	264	240	228	308	217	231	351	---	---	315	234	323
15	300	240	231	343	220	247	533	---	---	319	217	293
16	304	237	231	347	220	231	701	---	---	296	209	271
17	319	240	228	355	231	223	701	---	---	285	214	240
18	319	247	231	319	245	254	666	---	---	275	223	212
19	410	240	231	289	323	243	689	---	---	296	243	214
20	347	231	234	267	351	237	611	---	---	278	234	209
21	311	228	237	267	371	323	528	---	---	293	206	214
22	293	231	243	264	355	327	503	867	---	250	220	193
23	296	257	226	264	363	339	474	995	---	243	226	185
24	289	257	231	257	331	331	616	---	---	243	223	185
25	278	267	237	254	319	327	548	---	---	247	206	185
26	300	271	226	247	304	319	791	---	1070	257	226	172
27	278	260	226	231	289	351	---	---	1060	257	234	170
28	278	247	226	201	271	331	---	---	1360	260	234	162
29	260	243	223	226	275	327	---	---	1380	257	231	155
30	260	240	226	226	---	315	---	---	1290	243	209	148
31	257	---	231	234	---	319	---	---	---	254	204	---
TOTAL	8105	7448	7282	8126	7648	8913	---	---	---	13136	7383	6381
MEAN	261	248	235	262	264	288	---	---	---	424	238	213
MAX	410	271	271	355	371	371	---	---	---	1100	289	323
MIN	155	228	223	201	217	223	---	---	---	243	204	148
AC-FT	16080	14770	14440	16120	15250	17680	---	---	---	26060	14640	12660

CAL YR 1979 TOTAL 82541 MEAN 226 MAX 1300 MIN 52 AC-FT 163700

13212995 DIVERSIONS FROM BOISE RIVER BETWEEN AT BOISE AND NEAR PARMA GAGING STATIONS, ID

Between at Boise and near Parma gaging stations (prior to the 1974 water year, published as between at Boise and Notus gaging stations), 27 canals and several small farm laterals divert water from Boise River for irrigation.

Records of daily diversions for each canal for 1916-80 are on file in office of the Idaho Department of Water Resources. Prior to October 1967, no record available of diversions that are usually made during October and March. Miscellaneous diversions or pumping from Boise River below "at Boise" was reported by watermaster to be approximately as follows in acre-ft (m^3): October, 190 (234,000); April, 106 (131,000); May, 291 (359,000); June, 294 (363,000); July, 74 (504,000); August, 530 (653,000); September, 365 (450,000).

Records show summation of discharge for the recorded diversions. Staff gages on diversions are read daily or several times weekly and discharge measurements are made weekly. Records furnished by watermaster for Boise River.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1380	.00	.00	.00	.00	.00	.00	1990	1680	2430	2290	1980
2	1260	.00	.00	.00	.00	.00	.00	2010	1670	2400	2300	1920
3	1220	.00	.00	.00	.00	.00	.00	2070	1640	2490	2300	1920
4	1180	.00	.00	.00	.00	.00	133	2100	1640	2440	2290	1850
5	1180	.00	.00	.00	.00	.00	133	2160	1660	2450	2230	1810
6	1180	.00	.00	.00	.00	.00	133	2270	1630	2450	2200	1780
7	1180	.00	.00	.00	.00	.00	133	2390	1630	2330	2150	1780
8	1170	.00	.00	.00	.00	.00	133	2410	1640	2370	2180	1770
9	1110	.00	.00	.00	.00	.00	160	2410	1760	2330	2160	1760
10	1070	.00	.00	.00	.00	.00	360	2380	1940	2300	2200	1680
11	730	.00	.00	.00	.00	.00	440	2390	2130	2300	2210	1700
12	750	.00	.00	.00	.00	.00	440	2370	2220	2300	2200	1540
13	740	.00	.00	.00	.00	.00	440	2280	2260	2290	2210	1400
14	740	.00	.00	.00	.00	.00	500	2290	2210	2300	2200	1410
15	740	.00	.00	.00	.00	.00	550	2260	2220	2270	2200	1310
16	.00	.00	.00	.00	.00	.00	690	2200	2230	2280	2210	1270
17	.00	.00	.00	.00	.00	.00	850	2130	2180	2280	2230	1190
18	.00	.00	.00	.00	.00	.00	1080	2110	2190	2260	2230	1170
19	.00	.00	.00	.00	.00	.00	1100	2130	2270	2280	2210	1150
20	.00	.00	.00	.00	.00	.00	1160	2120	2380	2240	2190	1140
21	.00	.00	.00	.00	.00	.00	1330	2050	2430	2230	2190	1120
22	.00	.00	.00	.00	.00	.00	1380	2030	2480	2240	2170	1100
23	.00	.00	.00	.00	.00	.00	1540	2070	2520	2250	2170	1040
24	.00	.00	.00	.00	.00	.00	1670	2110	2470	2240	2170	970
25	.00	.00	.00	.00	.00	.00	1570	1840	2480	2270	2170	980
26	.00	.00	.00	.00	.00	.00	1620	1810	2400	2280	2140	990
27	.00	.00	.00	.00	.00	.00	1720	1720	2430	2310	2090	1000
28	.00	.00	.00	.00	.00	.00	1790	1650	2520	2350	2070	1000
29	.00	.00	.00	.00	.00	.00	1860	1670	2530	2250	2040	1030
30	.00	.00	.00	.00	---	.00	1930	1670	2510	2280	2020	1010
31	.00	---	.00	.00	---	.00	---	1660	---	2270	1990	---
TOTAL	15630.00	.00	.00	.00	.00	.00	24845.00	64750	63950	71760	67610	41770
MEAN	504	.000	.000	.000	.000	.000	828	2089	2132	2315	2181	1392
MAX	1380	.00	.00	.00	.00	.00	1930	2410	2530	2490	2300	1980
MIN	.00	.00	.00	.00	.00	.00	.00	1650	1630	2230	1990	970
AC-FT	31000	.00	.00	.00	.00	.00	49280	128400	126800	142300	134100	82850

CAL YR 1979 TOTAL 343083.00 MEAN 940 MAX 2580 MIN .00 AC-FT 680500
WTR YR 1980 TOTAL 350315.00 MEAN 957 MAX 2530 MIN .00 AC-FT 694800

13213000 BOISE RIVER NEAR PARMA, ID

LOCATION.--Lat 43°46'54", long 116°58'17", in NE¼SE¼SE¼ sec.7, T.5 N., R.5 W., Canyon County, Hydrologic Unit 17050114, on left bank at county road crossing, 1.2 mi (1.9 km) west of Parma, and at mile 3.8 (6.1 km).

DRAINAGE AREA.--3,970 mi² (10,300 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1938 to June 1939 (gage heights only), September 1971 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,196.49 ft (669.49 m) National Geodetic Vertical Datum of 1929. March 1938 to June 1939, nonrecording gage 1.4 mi (2.3 km) upstream at different datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--9 years, 1,650 ft³/s (46.73 m³/s), 1,195,000 acre-ft/yr (1,473 hm³/yr). The figure published in the 1979 report was in error; the correct figure is 8 years, 1,678 ft³/s (47.52 m³/s), 1,216,000 acre-ft/yr (1,500 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,840 ft³/s (222 m³/s) Mar. 3, 1972, gage height, 13.01 ft (3.965 m); minimum, 93 ft³/s (2.63 m³/s) Apr. 29, 1977, gage height, 6.16 ft (1.88 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Apr. 20, 1943, reached a discharge of about 20,000 ft³/s (566 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,460 ft³/s (155 m³/s) June 5, gage height, 12.06 ft (3.676 m); minimum, 446 ft³/s (12.6 m³/s) Apr. 10, gage height, 7.30 ft (2.225 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 27 to June 26)

7.0	326	10.0	2,790
7.5	574	11.0	4,180
8.0	915	12.0	5,740
9.0	1,730		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	885	1010	841	763	784	870	827	4670	5150	1360	847	1020
2	975	1000	848	763	784	908	812	4580	5300	1240	866	1040
3	878	1000	908	763	791	923	812	4470	5230	1490	873	1100
4	798	997	908	756	819	878	791	4350	5140	1680	930	1070
5	770	997	893	770	827	848	770	4300	5340	1730	963	1050
6	784	975	878	784	827	885	805	4280	5430	1700	833	1010
7	770	953	856	756	827	848	763	4560	5360	1290	756	998
8	749	953	848	763	827	819	695	4760	5330	967	766	992
9	695	945	841	791	798	791	675	4840	5090	900	716	917
10	649	930	834	1010	784	777	599	5040	4460	827	725	994
11	812	915	812	915	770	777	574	5090	3200	792	787	1700
12	735	908	805	885	763	791	636	5150	2700	863	714	1870
13	715	900	805	1100	763	770	749	5040	2710	882	664	1720
14	695	893	791	1060	763	756	722	4930	2590	955	642	2090
15	784	893	791	1080	777	749	702	4700	2590	957	660	1940
16	960	878	791	1090	777	749	841	4330	2580	904	681	1750
17	908	878	784	1060	791	729	878	3660	2340	842	728	1640
18	923	885	784	1060	923	763	967	3450	2140	809	809	1580
19	1170	893	784	975	1020	798	900	3390	1990	868	798	1570
20	1240	863	784	930	1020	756	784	3170	2200	897	746	1530
21	1180	856	784	900	1080	856	662	3490	3400	940	694	1530
22	1130	846	812	885	1040	953	521	1580	4240	861	700	1490
23	1140	878	784	870	1030	967	477	1410	4750	767	722	1410
24	1110	923	770	863	1010	915	702	2290	4890	712	732	1340
25	1100	923	798	856	967	885	930	3260	4330	710	781	1260
26	1090	923	798	841	953	870	834	3710	2020	744	750	1230
27	1080	908	777	812	915	908	1820	4400	1340	762	763	1220
28	1060	863	770	756	900	908	3220	4460	1620	820	751	1170
29	1030	841	763	749	878	870	3810	4530	1730	804	825	1110
30	1000	841	763	742	---	863	4380	4670	1690	792	918	1050
31	997	---	763	763	---	841	---	5090	---	766	982	---
TOTAL	28812	27470	25168	27111	25208	26021	32658	127650	106880	30631	24122	40391
MEAN	929	916	812	875	869	839	1089	4118	3563	988	778	1346
MAX	1240	1010	908	1100	1080	967	4380	5150	5430	1730	982	2090
MIN	649	841	763	742	763	729	477	1410	1340	710	642	917
AC-FT	57150	54490	49920	53770	50000	51610	64780	253200	212000	60760	47850	80120

CAL YR 1979 TOTAL 265954 MEAN 729 MAX 4810 MIN 196 AC-FT 527500
WTR YR 1980 TOTAL 522122 MEAN 1427 MAX 5430 MIN 477 AC-FT 1036000

13213000 BOISE RIVER NEAR PARMA, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
OCT 11...	1130	10400	563	8.3	14.0	14.0	9.2	95	2000
NOV 06...	1300	954	564	8.6	13.5	11.0	11.2	108	160
DEC 06...	1400	840	590	8.5	4.0	8.0	12.2	111	K60
JAN 09...	1230	805	564	8.3	3.0	4.0	11.6	97	920
FEB 12...	1030	762	564	8.4	1.0	5.5	11.2	96	330
APR 09...	1100	674	536	8.4	13.0	11.0	9.5	93	210
MAY 01...	1400	4500	166	7.6	22.0	11.5	8.7	88	600
JUN 12...	1100	2740	209	7.2	18.5	15.0	7.4	80	6500
JUL 15...	1200	938	437	7.9	25.0	18.5	9.4	96	6500
AUG 12...	1400	723	440	8.1	34.5	20.5	8.2	99	5900
SEP 04...	1000	1060	449	8.1	15.0	14.5	8.6	91	970

DATE	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS PO4)
OCT 11...	50	1.9	.87	.99	2.9	13	.15	.270	.83
NOV 06...	19	3.3	.67	.75	4.1	18	.10	.330	1.0
DEC 06...	--	--	--	--	--	--	--	--	--
JAN 09...	27	2.8	1.1	1.3	4.1	18	.28	.390	1.2
FEB 12...	21	2.9	.46	.68	3.6	16	.27	.370	1.1
APR 09...	48	2.5	.73	.96	3.5	15	.28	.480	1.5
MAY 01...	51	.52	1.1	1.2	1.7	7.6	.07	.170	.52
JUN 12...	--	--	--	--	--	--	--	--	--
JUL 15...	40	2.1	1.2	1.2	3.3	15	.00	.380	1.2
AUG 12...	18	1.8	.60	.72	2.5	11	.15	.340	1.0
SEP 04...	36	1.6	.88	.88	2.5	11	.00	.280	.86

K Results based on counts outside ideal colony count range.

13213000 BOISE RIVER NEAR PARMA, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
DEC								
06...	10	0	3	15	450	10	.1	20
JAN								
09...	10	1	2	16	410	10	.1	10
FEB								
12...	11	2	5	14	630	14	.1	30
JUN								
12...	6	1	--	19	110	6	.0	80
SEP								
04...	9	0	10	7	1100	13	.1	30

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	GROSS ALPHA, DIS-SOLVED (PCI/L AS U-NAT)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)
FEB							
12...	14	21	1.1	6.2	6.4	2.3	2.3
JUN							
12...	3.5	5.1	1.6	2.5	2.4	2.0	2.1
SEP							
04...	11	16	1.7	7.5	7.1	2.8	2.9

13213072 SAND RUN GULCH NEAR PARMA, ID

LOCATION.--Lat 43°47'59", long 116°58'29", SW¼SE¼NE¼ sec. 6, T.5 N., R.5 W., Canyon County, Hydrologic Unit 17050114, on right bank, 3.6 mi (5.8 km) upstream from mouth and 1.8 mi (2.9 km) northwest of Parma.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--August 1979 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,198.03 ft (669.96 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Numerous diversions upstream for irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 241 ft^3/s (6.82 m^3/s) Aug. 13, 1979, gage height, 2.13 ft (0.649 m); minimum discharge, 43 ft^3/s (1.218 m^3/s) Apr. 16, 1980, gage height, 0.28 ft (0.085 m).

EXTREMES FOR CURRENT PERIOD.--August to September 1979: maximum discharge during period, 297 ft^3/s (8.41 m^3/s) Aug. 13, gage height, 2.41 ft (0.735 m); minimum 96 ft^3/s (2.72 m^3/s) Aug. 6, gage height, 1.12 ft (0.341 m). Water year 1980: Maximum discharge, 205 ft^3/s (5.81 m^3/s) Sept. 11, gage height, 2.56 ft (0.780 m); minimum 43 ft^3/s (1.22 m^3/s) Apr. 16, gage height, 0.29 ft (0.088 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

Aug. to Sept. 1979		Oct. to Sept. 1980			
1.1	95	0.3	44	1.5	125
1.5	128	.5	56	2.0	162
2.1	235	1.0	90	2.5	200

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1											106	161
2											104	152
3											105	144
4											119	131
5											134	116
6											128	125
7											110	126
8											98	120
9											101	114
10											102	112
11											108	111
12											112	108
13											224	110
14											195	113
15											159	114
16											165	124
17											158	133
18											146	138
19											151	115
20											154	107
21											156	105
22											136	104
23											128	102
24											120	109
25											112	105
26											121	105
27											121	108
28											118	112
29											130	113
30											142	122
31											161	---
TOTAL	---	---	---	---	---	---	---	---	---	---	4124	3559
MEAN	---	---	---	---	---	---	---	---	---	---	133	119
MAX	---	---	---	---	---	---	---	---	---	---	224	161
MIN	---	---	---	---	---	---	---	---	---	---	98	102
AC-FT	---	---	---	---	---	---	---	---	---	---	8180	7060

13213072 SAND RUN GULCH NEAR PARMA, ID--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	126	79	78	74	67	57	53	112	134	122	122	173
2	128	79	79	73	62	58	52	103	142	117	124	165
3	110	79	80	73	63	58	54	103	139	119	130	163
4	109	79	80	74	62	57	53	92	137	131	134	161
5	106	79	80	75	62	57	53	93	138	142	133	156
6	99	80	80	72	63	57	53	94	144	137	134	153
7	100	80	81	71	62	56	52	89	139	129	131	156
8	99	80	80	72	62	55	52	90	124	123	124	156
9	96	79	79	74	62	55	52	100	103	119	117	131
10	99	80	79	76	62	55	51	112	97	118	117	140
11	101	79	77	74	62	55	59	116	117	114	125	186
12	104	79	78	80	62	54	65	96	118	121	129	186
13	104	79	77	82	62	54	65	95	126	119	122	158
14	106	79	77	80	62	54	58	124	133	121	113	164
15	107	79	78	79	62	53	48	133	128	122	114	150
16	98	79	77	81	62	51	46	141	128	117	111	142
17	93	79	76	79	62	51	63	130	110	118	119	134
18	86	79	76	77	65	55	65	122	102	119	128	133
19	87	79	75	74	64	54	69	122	105	128	123	129
20	84	79	75	74	64	51	70	116	110	141	126	125
21	83	79	77	73	64	59	80	110	112	134	126	123
22	81	80	77	73	64	55	68	109	119	125	127	121
23	81	82	74	72	63	54	57	108	121	124	134	117
24	77	82	75	72	62	52	72	122	131	97	134	111
25	77	81	80	73	62	52	119	141	122	103	143	115
26	75	80	76	72	61	53	116	145	108	114	141	117
27	76	79	75	70	60	58	119	146	110	119	141	119
28	77	79	75	70	60	54	124	148	119	126	140	112
29	77	78	74	70	58	54	91	145	131	128	141	107
30	77	76	73	70	---	52	105	145	134	119	154	106
31	78	---	74	70	---	52	---	143	---	119	165	---
TOTAL	2901	2380	2392	2299	1808	1692	2084	3645	3681	3785	4022	4209
MEAN	93.6	79.3	77.2	74.2	62.3	54.6	69.5	118	123	122	130	140
MAX	128	82	81	82	67	59	124	148	144	142	165	186
MIN	75	76	73	70	58	51	46	89	97	97	111	106
AC-FT	5750	4720	4740	4560	3590	3360	4130	7230	7300	7510	7980	8350

WTR YR 1980 TOTAL 34898 MEAN 95.3 MAX 186 MIN 46 AC-FT 69220

13213100 SNAKE RIVER AT NYSSA, OR

LOCATION.--Lat 43°52'36", long 116°59'02", in NW¼SW¼NW¼ sec.33, T.19 S., R.47 E., Malheur County, Hydrologic Unit 17050115, on left bank 300 ft (90 m) upstream from U.S. Highway 20-26 bridge at Nyssa, 2.3 mi (3.7 km) downstream from Boise River, and at mile 385.2 (619.8 km).

DRAINAGE AREA.--58,700 mi² (152,000 km²), approximately.

PERIOD OF RECORD.--November 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,170 ft (661 m), from topographic map.

REMARKS.--Records good. Flow regulated by many reservoirs above station.

AVERAGE DISCHARGE.--5 years, 12,730 ft³/s (361 m³/s), 9,223,000 acre-ft/yr (11,370 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 41,900 ft³/s (1,190 m³/s) Apr. 16, 1975, and Apr. 13, 1976, gage height, 10.72 ft (3.267 m); minimum, 4,330 ft³/s (123 m³/s) July 1, 1977, gage height, 4.00 ft (1.219 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 40,100 ft³/s (1,140 m³/s) June 7, gage height, 10.71 ft (3.264 m); minimum, 6,510 ft³/s (184 m³/s) July 17, gage height, 4.58 ft (1.396 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Mar. 15 to July 7)

4.5	6300	8.0	24600
5.0	8450	10.4	39800
6.0	13200		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10400	10500	9500	9500	9630	9920	9590	12600	30000	7220	7400	8770
2	10400	10400	9450	9730	8670	10000	9400	14200	31400	6720	7350	9220
3	10200	10400	9500	8860	8040	10000	9220	17600	33700	7530	7400	9220
4	10000	10500	9730	9270	8800	9360	8950	16900	34400	7840	7570	8900
5	9970	11300	10000	9220	8830	9450	9590	14500	37900	7660	7350	9130
6	9830	10900	9270	9130	8570	9220	9640	12700	39000	7840	7310	9780
7	9880	10500	9450	9500	8850	9640	10300	14000	39500	7700	7310	9180
8	9970	10500	9830	9580	9050	9370	15500	14500	39300	7400	7350	9220
9	9780	10400	9920	9580	9120	9970	14500	14300	37800	8590	7440	8950
10	9830	10400	9780	9260	9640	9730	13200	13600	36200	7570	7490	9590
11	10000	9500	9040	9360	9930	10200	15600	15200	33700	6890	7700	11300
12	10200	8810	8500	10100	9080	9080	15200	16200	30700	6630	7490	12900
13	9780	9040	9360	10600	8520	9270	14300	17300	26800	6720	7310	12900
14	9830	9880	9730	10300	8720	8950	13200	18800	22700	6680	7270	13600
15	9830	10200	9780	10200	8640	8410	13000	20600	19400	6720	7270	12900
16	9780	9500	9180	14400	8840	8500	13100	21900	18300	6630	7180	12700
17	10200	9640	9180	14500	8940	8680	14400	21500	16800	6590	7220	12500
18	10400	9970	9040	13700	9150	9590	14400	21700	13200	6720	7570	12800
19	10800	9880	9220	12100	11200	8630	12000	21600	12700	7010	7490	12400
20	11200	9220	9730	11700	12300	8540	11300	19200	14300	7010	7750	11800
21	10900	9640	9780	10900	12200	9310	9360	17300	13800	7220	8010	12000
22	10800	10100	9830	9320	12100	10300	8720	15800	14300	6970	8010	11900
23	12100	9590	9830	9930	12000	10100	9730	14800	14600	6800	7920	12000
24	11500	9780	9040	10100	11300	9540	10500	15100	12500	6630	7880	11600
25	11200	10100	9640	10000	10500	9730	11300	16800	13400	6590	8140	11600
26	11200	10200	9830	10000	9630	9780	11000	20700	10100	6680	7920	11900
27	10800	10100	9080	10100	10100	10300	11900	24800	8630	6720	7920	11600
28	10700	10100	9310	10000	9220	10500	13000	26500	8230	7010	7920	11300
29	10700	9780	9640	9360	9540	9420	12500	29000	7750	7140	8010	10600
30	10700	9970	9360	9880	---	8900	12300	30400	7620	7310	8140	9830
31	10600	---	8810	10200	---	9730	---	31200	---	7440	8360	---
TOTAL	323480	300800	293390	320380	282060	295220	356700	581300	678730	220180	236450	332090
MEAN	10430	10030	9464	10330	9726	9523	11890	18750	22620	7103	7627	11070
MAX	12100	11300	10000	14500	12300	10500	15600	31200	39500	8590	8360	13600
MIN	9780	8810	8500	8860	8520	8410	8720	12600	7620	6590	7180	8770
AC-FT	641600	596600	581900	635500	559500	585600	707500	1153000	1346000	436700	469000	658700

CAL YR 1979 TOTAL 4230650 MEAN 11590 MAX 24000 MIN 5490 AC-FT 8391000
WTR YR 1980 TOTAL 4220700 MEAN 11530 MAX 39500 MIN 6590 AC-FT 8372000

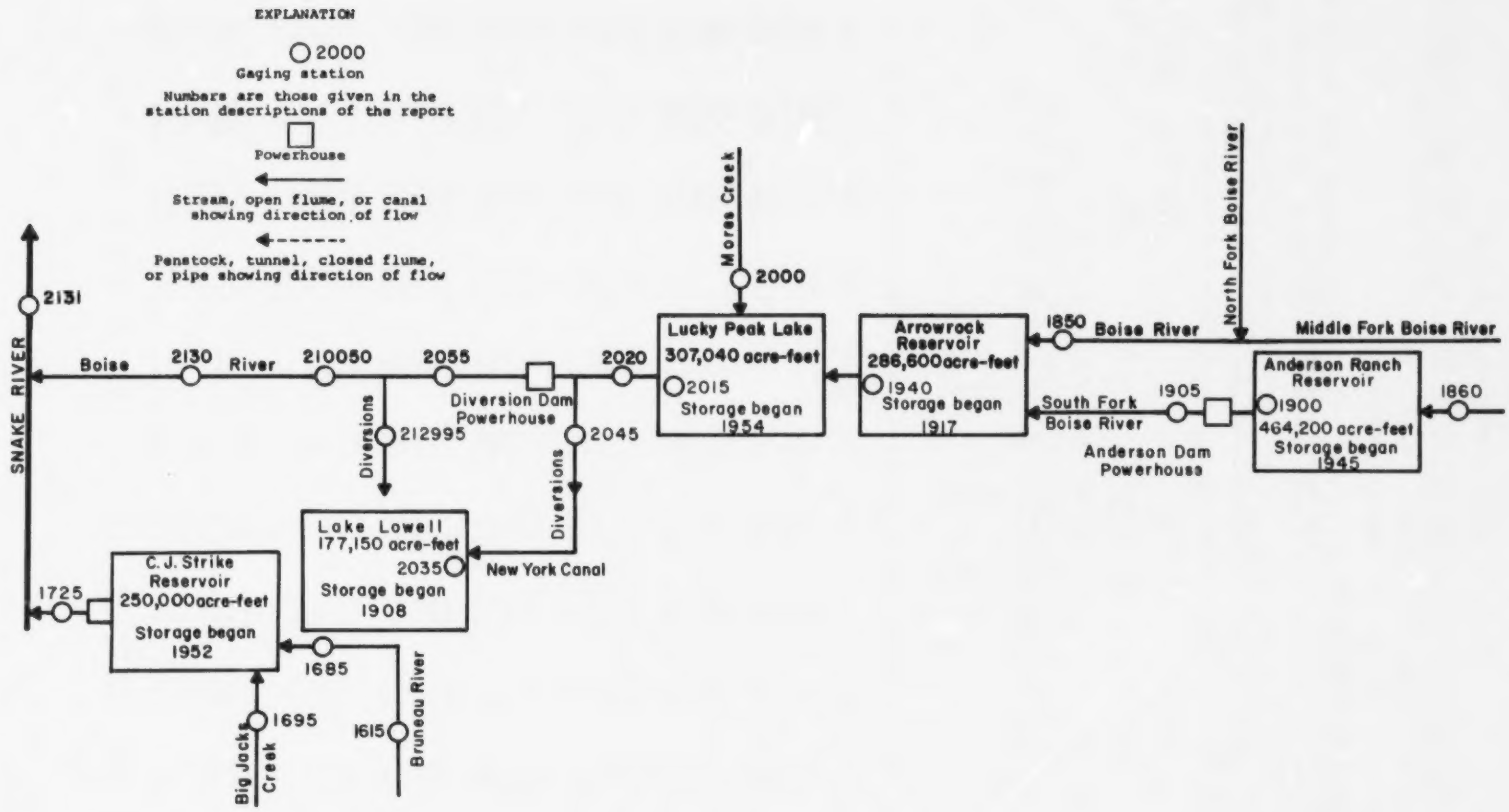

FIGURE 13.--Gaging stations in Bruneau and Boise Rivers basins.

13235000 SOUTH FORK PAYETTE RIVER AT LOWMAN, ID

LOCATION.--Lat 44°05'07", long 115°37'16", in SE¼NW¼SW¼ sec.27, T.9 N., R.7 E., Boise County, Hydrologic Unit 17040120, Boise National Forest, on right bank 1,200 ft (366 m) upstream from Rock Creek, 0.5 mi (0.8 km) northwest of Lowman, 4,100 ft (1,250 m) downstream from Clear Creek, and at mile 106 (171 km).

DRAINAGE AREA.--456 mi² (1,181 km²). Mean altitude, 6,780 ft (2,067 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1941 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,790 ft (1,155 m), from river-profile map. Prior to Dec. 18, 1941, nonrecording gage at site 900 ft (274 m) upstream at different datum.

REMARKS.--Records good. No regulation. Several small diversions for irrigation, the return flow from which enters river above station.

AVERAGE DISCHARGE.--39 years, 878 ft³/s (24.86 m³/s), 26.15 in/yr (664 mm/yr), 636,100 acre-ft/yr (784 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,980 ft³/s (254 m³/s) June 16, 1974, gage height, 8.36 ft (2.548 m), from floodmark; minimum, 135 ft³/s (3.82 m³/s) Sept. 10, 1966, Jan. 1-2, 1978; minimum gage height, 2.22 ft (0.677 m) Sept. 10, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 3,000 ft³/s (85.0 m³/s) and maximum (*).

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 7	0015	3390	96.0	5.56	1.695	June 22	1115	4130	117	5.96	1.817
May 23	1250	*4260	121	6.03	1.838						

Minimum daily discharge, 140 ft³/s (3.96 m³/s) Nov. 21, Dec. 28.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 19 to Apr. 13, Aug. 23 to Sept. 30;
stage-discharge relation affected by ice Dec. 28-30, Jan. 22-27, Feb. 10-14)

2.6	110	4.0	1090
2.7	151	5.0	2500
3.0	298	6.0	4280
3.5	615		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	267	293	290	314	388	388	336	2300	2010	2600	719	382
2	267	283	310	252	412	400	336	2560	2110	2500	686	388
3	262	283	320	226	394	406	330	2830	1980	2800	669	430
4	267	283	310	226	330	388	330	2970	1880	2600	637	388
5	267	288	290	267	252	388	336	3110	1840	2400	622	370
6	267	283	275	217	241	376	364	3300	1760	2200	600	359
7	262	272	280	193	241	359	347	3230	1690	2100	592	364
8	262	267	280	246	231	347	336	3140	1690	2000	570	388
9	257	262	280	277	212	341	347	3210	1880	1850	556	388
10	262	262	280	272	220	336	370	2900	2200	1700	542	400
11	262	262	160	252	230	359	364	2480	2500	1700	528	488
12	262	252	178	325	240	359	382	2170	2700	1570	515	430
13	262	246	262	585	245	347	462	2000	2550	1470	501	494
14	262	246	262	600	250	359	607	1880	2600	1380	494	455
15	298	246	283	522	252	376	694	1890	2450	1300	494	412
16	314	262	252	443	246	347	790	1910	2250	1200	535	382
17	277	267	231	394	252	330	930	1760	2650	1160	494	364
18	283	267	221	353	341	353	1220	1850	3150	1140	494	364
19	462	246	252	288	449	341	1460	2040	3900	1090	488	400
20	382	185	241	252	437	330	1780	2380	3900	1040	475	394
21	325	140	236	298	412	341	2010	2900	3900	1010	462	455
22	314	190	236	250	376	341	2010	3550	4030	984	455	406
23	330	290	221	260	347	359	2180	4150	3810	951	443	388
24	330	270	231	250	325	359	2380	3790	3260	930	430	370
25	336	260	236	290	309	359	2380	3260	2950	887	418	359
26	370	260	231	280	309	359	2340	2850	2950	847	412	359
27	336	255	178	270	319	359	2420	2510	2730	809	406	353
28	336	235	140	197	370	341	2590	2270	2500	781	394	347
29	325	160	160	231	388	341	2760	2150	2500	762	394	341
30	304	140	200	241	---	347	2510	2060	2600	736	388	330
31	293	---	277	293	---	336	---	1980	---	719	382	---
TOTAL	9303	7455	7603	9364	9018	11072	35701	81380	78920	45216	15795	11748
MEAN	300	249	245	302	311	357	1190	2625	2631	1459	510	392
MAX	462	293	320	600	449	406	2760	4150	4030	2800	719	494
MIN	257	140	140	193	212	330	330	1760	1690	719	382	330
CFSM	.66	.55	.54	.66	.68	.78	2.61	5.76	5.77	3.20	1.12	.86
IN.	.76	.61	.62	.76	.74	.90	2.91	6.64	6.44	3.69	1.29	.96
AC-FT	18450	14790	15080	18570	17890	21960	70810	161400	156500	89690	31330	23300

CAL YR 1979 TOTAL 205660 MEAN 563 MAX 3440 MIN 140 CFSM 1.24 IN 16.78 AC-FT 407900
WTR YR 1980 TOTAL 322575 MEAN 881 MAX 4150 MIN 140 CFSM 1.93 IN 26.32 AC-FT 639800

13235000 SOUTH FORK PAYETTE RIVER AT LOWMAN, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.
REMARKS.--Miscellaneous chemical data published for water years 1973-75.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT
OCT 15...	1330	296	--	--	11.0	10.0	--	--	--	--	--	--
DEC 10...	1430	281	87	7.6	1.5	2.5	34	0	13	.4	5.1	25
JAN 08...	1315	254	--	--	.0	.0	--	--	--	--	--	--
FEB 20...	1030	432	89	--	7.0	4.0	--	--	--	--	--	--
APR 11...	1120	362	81	--	11.0	5.5	--	--	--	--	--	--
JUN 03...	1420	1960	57	--	15.0	6.5	--	--	--	--	--	--
JUL 22...	1300	983	56	7.9	31.0	14.5	21	5	7.7	.5	2.5	20
SEP 23...	1340	387	71	--	19.0	10.5	--	--	--	--	--	--

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 15...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 10...	.4	.6	40	4.3	.9	1.0	12	62	.08	47.0	.07	.010
JAN 08...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 20...	--	--	--	--	--	--	--	--	--	--	--	--
APR 11...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 03...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 22...	.2	.4	16	4.8	1.1	.5	10	37	.05	98.2	.04	.010
SEP 23...	--	--	--	--	--	--	--	--	--	--	--	--

13236000 DEADWOOD RESERVOIR NEAR LOWMAN, ID

LOCATION.--Lat 44°17'38", long 115°38'41", in SW¼SE¼ sec.8, T.11 N., R.7 E., Valley County, Hydrologic Unit 17050120, Boise National Forest, at dam on Deadwood River, 15 mi (24 km) north of Lowman, and at mile 18.0 (29.0 km).

DRAINAGE AREA.--112 mi² (290 km²).

PERIOD OF RECORD.--October 1935 to current year.

REVISED RECORDS.--WSP 1567: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Water and Power Resources Service). National Geodetic Vertical Datum of 1929 is 22.8 ft (6.95 m) higher. Prior to July 1, 1964, nonrecording gage.

REMARKS.--Reservoir is formed by concrete-arch dam completed in 1930; storage began Nov. 2, 1930. Reported capacity, 160,400 acre-ft (198 hm³) between elevations 5,230.0 ft (1,594.10 m), minimum operating level for fish protection, 27 ft (8.2 m) above sill of emergency gate in front of needle valve, and 5,334.0 ft (1,625.80 m) crest of spillway. Storage below elevation 5,230 ft (1,594.1 m), about 1,500 acre-ft (1.85 hm³). Water is used to augment flow of Payette River at Black Canyon powerplant near Emmett and, since 1956, as supplemental irrigation supply for Emmett Irrigation District and other users. Small diversion from a tributary of Johnson Creek in Salmon River basin to Deadwood River basin for supplemental storage in Deadwood Reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 5,337.43 ft (1,626.849 m) June 25, 1974; minimum observed, about 5,205 ft (1,586.5 m) Sept. 18 to Oct. 11, 1951, Aug. 30 to Sept. 30, 1973, Oct. 1-4, 1974, when reservoir was drained for repairs.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 5,335.94 ft (1,626.395 m) June 21; minimum, 5,281.58 ft (1,609.826 m) Oct. 1.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5281.64	5284.61	5286.66	5289.15	5292.15	5294.46	5296.91	5307.37	5333.02	5335.17	5321.38	5307.07
2	5281.70	5284.70	5286.84	5289.21	5292.23	5294.55	5296.97	5308.24	5333.49	5335.05	5320.62	5306.89
3	5281.75	5284.78	5286.93	5289.28	5292.32	5294.64	5297.05	5309.16	5333.93	5334.96	5319.82	5306.72
4	5281.81	5284.86	5287.02	5289.37	5292.36	5294.73	5297.12	5310.19	5334.32	5334.94	5319.04	5306.53
5	5281.89	5284.96	5287.09	5289.51	5292.44	5294.78	5297.19	5311.27	5334.56	5334.92	5318.24	5306.34
6	5281.96	5285.05	5287.18	5289.55	5292.53	5294.89	5297.34	5312.51	5334.80	5334.83	5317.42	5306.10
7	5282.02	5285.10	5287.25	5289.63	5292.57	5294.96	5297.40	5313.71	5334.92	5334.79	5316.60	5305.86
8	5282.08	5285.19	5287.30	5289.74	5292.63	5295.04	5297.49	5314.87	5334.96	5334.66	5315.87	5305.63
9	5282.12	5285.25	5287.41	5289.89	5292.68	5295.11	5297.59	5316.05	5335.10	5334.59	5315.19	5305.40
10	5282.16	5285.28	5287.46	5289.95	5292.75	5295.18	5297.66	5316.99	5335.26	5334.47	5314.50	5305.20
11	5282.25	5285.29	5287.52	5290.06	5292.81	5295.25	5297.73	5317.84	5335.46	5334.37	5313.97	5305.02
12	5282.30	5285.42	5287.59	5290.28	5292.88	5295.33	5297.82	5318.61	5335.62	5334.05	5313.41	5304.79
13	5282.35	5285.47	5287.66	5290.49	5292.96	5295.45	5297.92	5319.34	5335.69	5333.75	5312.89	5304.68
14	5282.42	5285.52	5287.71	5290.64	5293.04	5295.61	5298.04	5320.07	5335.72	5333.39	5312.38	5304.46
15	5282.52	5285.58	5287.79	5290.76	5293.11	5295.66	5298.16	5320.76	5335.70	5332.93	5311.94	5304.23
16	5282.63	5285.67	5287.86	5290.90	5293.18	5295.72	5298.34	5321.52	5335.64	5332.33	5311.53	5304.13
17	5282.67	5285.76	5287.93	5291.00	5293.30	5295.81	5298.56	5322.19	5335.65	5331.68	5311.09	5304.20
18	5282.80	5285.82	5287.98	5291.08	5293.46	5295.91	5298.85	5322.90	5335.73	5331.04	5310.71	5304.29
19	5283.11	5285.85	5288.07	5291.15	5293.59	5295.97	5299.22	5323.62	5335.78	5330.40	5310.38	5304.37
20	5283.25	5285.89	5288.16	5291.19	5293.70	5296.08	5299.69	5324.45	5335.83	5329.77	5310.04	5304.49
21	5283.37	5285.96	5288.23	5291.31	5293.79	5296.14	5300.21	5325.37	5335.84	5329.12	5309.69	5304.58
22	5283.48	5286.05	5288.29	5291.38	5293.88	5296.17	5300.76	5326.39	5335.83	5328.47	5309.37	5304.67
23	5283.63	5286.13	5288.39	5291.46	5293.94	5296.27	5301.41	5327.56	5335.80	5327.79	5309.09	5304.74
24	5283.71	5286.25	5288.55	5291.56	5294.02	5296.33	5302.08	5328.48	5335.71	5327.09	5308.80	5304.83
25	5283.86	5286.29	5288.64	5291.62	5294.09	5296.39	5302.69	5329.26	5335.64	5326.40	5308.56	5304.89
26	5284.02	5286.36	5288.67	5291.70	5294.16	5296.48	5303.35	5329.94	5335.53	5325.71	5308.36	5304.97
27	5284.16	5286.40	5288.75	5291.73	5294.24	5296.56	5304.07	5330.54	5335.46	5325.01	5308.14	5305.05
28	5284.25	5286.45	5288.79	5291.82	5294.32	5296.62	5304.92	5331.07	5335.42	5324.29	5307.96	5305.10
29	5284.27	5286.50	5288.82	5291.87	5294.38	5296.69	5305.76	5331.57	5335.35	5323.59	5307.69	5305.17
30	5284.43	5286.61	5288.96	5291.93	---	5296.75	5306.58	5332.06	5335.30	5322.85	5307.48	5305.25
31	5284.52	---	5289.07	5292.04	---	5296.85	---	5332.52	---	5322.12	5307.28	---
MAX	5284.52	5286.61	5289.07	5292.04	5294.38	5296.85	5306.58	5332.52	5335.84	5335.17	5321.38	5307.07
MIN	5281.64	5284.61	5286.66	5289.15	5292.15	5294.46	5296.91	5307.37	5333.02	5322.12	5307.28	5304.13

WTR YR 1980 MAX 5335.84 MIN 5281.64

13236500 DEADWOOD RIVER BELOW DEADWOOD RESERVOIR, NEAR LOWMAN, ID

LOCATION.--Lat 44°17'30", long 115°38'33", in SE¼NE¼ sec.17, T.11 N., R.7 E., Valley County, Hydrologic Unit 17050120, Boise National Forest, on right bank 300 ft (91 m) upstream from Wilson Creek, 0.2 mi (0.3 km) downstream from Deadwood Dam, 15 mi (24 km) north of Lowman, and at mile 23.4 (37.7 km).

DRAINAGE AREA.--112 mi² (290 km²). Mean altitude, 6,630 ft (2,020 m).

PERIOD OF RECORD.--October 1926 to current year. Monthly discharge only prior to May 1927, published in WSP 1317. Published as "at Beaver Creek ranger station, near Lowman" prior to October 1934.

REVISED RECORDS.--WSP 1123: 1943. WSP 1517: 1956. WSP 1567: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,180.52 ft (1,579.022 m) mean sea level (levels by Water and Power Resources Service). National Geodetic Vertical Datum of 1929 is 29.19 ft (8.897 m) higher. Prior to June 22, 1935, at site 600 ft (183 m) upstream at datum 5.85 ft (1.783 m) higher and Oct. 1, 1935, to Aug. 3, 1955, at present site at datum 1.00 ft (0.305 m) higher. June 22 to Sept. 30, 1935, nonrecording gage at site 20 ft (6.1 m) upstream at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records good except those below 5.0 ft³/s (0.14 m³/s), which are poor. Flow regulated by Deadwood Reservoir (see sta 13236000).

AVERAGE DISCHARGE.--54 years, 233 ft³/s (6.60 m³/s), 168,800 acre-ft/yr (208 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,580 ft³/s (73.1 m³/s) July 14, 1953, maximum gage height, 8.93 ft (2.722 m) June 7, 1956; no flow or small amount of leakage from reservoir for long periods in 1934-37, when gates in dam were closed.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,230 ft³/s (34.8 m³/s) July 20, gage height, 6.83 ft (2.082 m) but may have been higher during period of no gage-height record; minimum daily, 0.99 ft³/s (0.028 m³/s) Sept. 26-30; minimum gage height, 0.85 ft (0.259 m) Sept. 23, 24, 26-30.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Feb. 13 to June 9)

0.8	0.87	1.7	32
0.9	1.3	2.0	57
1.0	2.1	3.0	170
1.1	3.4	4.0	327
1.2	5.8	5.0	573
1.4	14	7.0	1300

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	3.3	2.5	2.8	2.5	2.5	2.3	6.7	3.6	770	1190	295
2	2.4	3.2	2.5	2.8	2.5	2.5	2.3	8.5	3.6	770	1190	295
3	2.4	3.0	2.5	2.8	2.5	2.5	2.2	9.8	3.3	720	1190	295
4	2.3	2.9	2.7	2.8	2.5	2.5	2.1	11	36	660	1180	295
5	2.3	2.9	2.7	2.7	2.5	2.5	2.3	12	135	610	1180	295
6	2.3	2.9	2.7	2.7	2.5	2.5	2.3	13	237	550	1180	323
7	2.2	2.9	2.7	2.7	2.5	2.5	2.3	12	319	510	1220	336
8	2.2	2.9	2.7	2.7	2.5	2.5	2.3	11	367	480	1000	336
9	2.2	2.9	2.7	2.7	2.5	2.4	2.3	12	437	450	1000	336
10	2.2	2.9	2.7	2.7	2.5	2.4	2.3	9.8	480	420	1000	336
11	2.2	2.9	2.7	2.7	2.5	2.4	2.3	8.2	490	615	745	336
12	2.6	2.8	2.7	2.9	2.5	2.4	2.3	6.7	490	815	745	336
13	3.3	2.8	2.7	3.4	2.4	2.4	2.3	6.1	490	770	742	338
14	3.1	2.8	2.7	3.3	2.4	2.4	2.3	5.8	490	770	742	312
15	3.2	2.8	2.7	3.1	2.3	2.5	2.3	6.1	490	1010	610	344
16	3.2	2.8	2.7	2.9	2.4	2.5	2.3	5.8	885	1200	600	342
17	2.2	2.8	2.7	2.8	2.4	2.5	2.4	5.2	880	1220	610	1.1
18	2.2	2.8	2.7	2.8	2.4	2.5	2.5	5.5	900	1210	495	1.0
19	3.5	2.8	2.7	2.8	2.5	2.5	2.9	5.5	920	1210	495	1.0
20	3.6	2.8	2.7	2.8	2.5	2.5	3.6	6.1	935	1210	490	1.0
21	3.4	2.8	2.7	2.8	2.7	2.5	4.2	6.7	970	1200	490	1.0
22	3.4	2.8	2.7	2.8	2.7	2.4	4.5	7.1	980	1210	400	1.0
23	3.5	2.8	2.7	2.8	2.7	2.4	5.0	8.5	960	1200	400	1.0
24	3.4	2.8	2.7	2.7	2.7	2.4	5.0	5.8	910	1200	400	1.1
25	3.4	2.8	2.7	2.7	2.5	2.4	4.7	5.2	850	1190	295	1.0
26	3.5	2.7	2.7	2.7	2.5	2.4	4.7	4.2	795	1190	295	.99
27	3.3	2.5	2.7	2.7	2.5	2.4	5.8	4.0	740	1200	295	.99
28	3.3	2.5	2.7	2.7	2.5	2.4	7.4	3.8	675	1180	295	.99
29	3.3	2.5	2.7	2.7	2.5	2.4	8.2	3.6	635	1170	295	.99
30	3.3	2.5	2.7	2.7	---	2.4	6.7	3.4	595	1180	295	.99
31	3.3	---	2.8	2.5	---	2.3	---	3.4	---	1180	295	---
TOTAL	89.1	84.6	83.2	86.7	72.6	75.8	104.1	222.5	17101.5	29070	21359	5164.15
MEAN	2.87	2.82	2.68	2.80	2.50	2.45	3.47	7.18	570	938	689	172
MAX	3.6	3.3	2.8	3.4	2.7	2.5	8.2	13	980	1220	1220	344
MIN	2.2	2.5	2.5	2.5	2.3	2.3	2.1	3.4	3.3	420	295	.99
AC-FT	177	168	165	172	144	150	206	441	33920	57660	42370	10240

CAL YR 1979 TOTAL 66442.00 MEAN 182 MAX 1090 MIN 1.6 AC-FT 131800
WTR YR 1980 TOTAL 73513.25 MEAN 201 MAX 1220 MIN .99 AC-FT 145800

NOTE.--No gage-height record Oct. 1-10, June 9-20, July 27 to Sept. 5.

13237538 BOILING SPRINGS LEFT CHANNEL AT BOILING SPRINGS GUARD STATION, ID

LOCATION.--Lat 44°21'50", long 115°22'22", in SW¼NW¼NW¼ sec.22, T.2 N., R.5 E., Valley County, Hydrologic Unit 17050121, Boise National Forest, at Boiling Springs guard station and 19 mi north of Garden Valley.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: August 1978 to current year.

INSTRUMENTATION.--Temperature recorder since Aug. 20, 1978.

REMARKS.--August and September 1978 daily temperatures are available in district office.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 86.0°C June 28-29, July 3, 8, 9, 12-14, 16, 24-27, 29-31, and Aug. 1-2; minimum, 83.5°C on several days November to January.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	85.0	84.0	84.5	84.0	84.0	83.5	84.0	84.0	85.0	84.5	85.0	84.5
2	85.0	84.5	84.5	84.0	84.0	83.5	84.5	84.0	85.0	84.5	84.5	84.5
3	85.0	84.5	84.5	84.0	83.5	83.5	84.0	84.0	84.5	84.5	84.5	84.5
4	85.0	84.5	84.0	84.0	83.5	83.5	84.0	84.0	84.5	84.0	84.5	84.5
5	85.0	84.5	84.0	83.5	83.5	83.5	84.0	84.0	84.5	84.5	84.5	84.5
6	85.0	84.5	84.5	83.5	83.5	83.5	84.0	83.5	84.5	84.0	84.5	84.5
7	85.0	84.5	84.5	83.5	84.0	83.5	84.0	83.5	84.5	84.0	85.0	84.5
8	85.0	84.5	84.5	83.5	83.5	83.5	83.5	83.5	85.0	84.5	84.5	84.5
9	85.0	84.5	84.5	83.5	83.5	83.5	84.0	84.0	85.0	84.5	84.5	84.5
10	85.5	84.5	84.0	83.5	84.0	83.5	84.0	84.0	85.0	84.5	85.0	84.5
11	85.5	84.5	84.0	83.5	84.0	83.5	84.0	83.5	85.0	84.5	85.0	84.5
12	85.0	84.5	84.0	83.5	84.0	83.5	84.0	83.5	85.0	84.5	85.0	84.5
13	85.0	84.5	84.0	83.5	84.0	83.5	83.5	83.5	85.0	84.5	85.0	84.5
14	85.0	84.5	84.0	83.5	84.0	83.5	83.5	83.5	85.0	84.5	84.5	84.5
15	85.0	84.5	84.5	83.5	84.0	83.5	83.5	83.5	84.5	84.5	84.5	84.5
16	85.0	84.5	84.0	83.5	84.0	83.5	84.0	83.5	85.0	84.5	84.5	84.5
17	85.0	84.5	84.0	83.5	84.0	83.5	84.0	83.5	85.0	84.5	84.5	84.5
18	84.5	84.5	84.0	83.5	84.0	83.5	84.0	84.0	84.5	84.5	84.5	84.5
19	84.5	84.5	84.0	83.5	84.0	83.5	84.0	84.0	84.5	84.5	85.0	84.5
20	84.5	84.0	84.0	83.5	84.0	83.5	84.0	84.0	84.5	84.0	85.0	84.5
21	84.5	84.0	84.5	83.5	84.0	83.5	84.0	84.0	84.5	84.5	85.0	84.5
22	84.0	84.0	84.0	83.5	84.0	84.0	84.5	84.0	84.5	84.5	85.0	84.5
23	84.5	84.0	84.5	83.5	84.0	84.0	84.5	84.0	84.5	84.5	85.0	84.5
24	84.5	84.0	84.0	83.5	84.0	83.5	84.5	84.0	84.5	84.0	85.0	84.5
25	84.5	84.0	84.0	83.5	84.0	83.5	84.5	84.5	84.5	84.5	85.0	84.5
26	84.5	84.0	84.0	83.5	84.0	83.5	84.5	84.5	84.5	84.5	85.0	84.5
27	84.5	84.0	84.5	83.5	84.0	83.5	85.0	84.5	85.0	84.5	85.0	84.5
28	84.5	84.0	84.0	83.5	84.0	83.5	85.0	84.5	84.5	84.5	85.0	84.5
29	84.5	84.0	84.5	83.5	84.0	83.5	85.0	84.5	85.0	84.5	85.0	84.5
30	84.5	84.0	84.0	83.5	84.0	84.0	85.0	84.5	---	---	85.0	85.0
31	84.5	84.0	---	---	84.0	84.0	84.5	84.5	---	---	85.5	84.5
MONTH	85.5	84.0	84.5	83.5	84.0	83.5	85.0	83.5	85.0	84.0	85.5	84.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	85.0	85.0	85.0	84.5	85.5	85.0	85.5	85.0	86.0	85.0	85.0	84.5
2	85.5	85.0	85.5	85.0	85.5	85.0	85.5	85.0	85.0	85.0	84.5	84.5
3	85.0	85.0	85.0	85.0	85.5	85.0	86.0	85.0	85.5	85.0	85.0	84.5
4	85.0	84.5	85.0	85.0	85.5	85.0	85.5	85.0	85.5	84.5	85.0	84.5
5	85.0	84.5	85.0	85.0	85.5	85.0	85.5	84.5	85.0	84.5	85.0	84.5
6	85.0	84.5	85.0	85.0	85.5	85.0	85.5	84.5	85.5	84.5	85.0	84.5
7	85.0	84.5	85.5	85.0	85.5	85.0	85.5	85.0	85.5	84.5	85.0	84.5
8	85.0	84.5	85.5	85.0	85.5	85.0	86.0	85.0	85.0	84.5	85.0	84.5
9	85.0	84.5	85.5	85.0	85.5	85.0	85.5	85.0	85.0	84.5	85.0	84.5
10	85.0	84.5	85.5	85.0	85.5	85.0	86.0	85.0	85.5	84.5	85.0	84.5
11	85.0	84.5	85.5	85.0	85.5	85.0	85.5	85.0	85.5	84.5	85.5	84.5
12	85.0	84.5	85.0	84.5	85.0	85.0	86.0	85.0	85.0	84.5	85.0	84.5
13	85.0	84.5	85.0	84.5	85.5	85.0	86.0	85.0	85.0	84.5	85.5	84.5
14	85.0	84.5	85.0	85.0	85.0	84.5	86.0	85.0	84.5	84.5	85.5	84.5
15	85.0	84.5	85.0	84.5	85.5	85.0	85.5	85.0	84.5	84.5	85.0	84.5
16	85.5	84.5	85.0	84.5	85.5	85.0	86.0	85.0	85.0	84.5	85.0	84.0
17	85.0	84.5	85.0	84.0	85.5	85.0	85.5	85.0	85.0	84.5	85.0	84.5
18	85.5	84.5	85.0	84.5	85.5	85.0	85.5	85.0	85.0	84.5	85.0	84.5
19	85.0	84.5	85.0	84.5	85.5	85.0	85.5	85.0	85.5	84.5	85.0	84.5
20	85.0	84.5	85.0	84.5	85.5	85.0	85.5	85.0	85.5	84.5	85.5	84.5
21	85.0	84.5	85.0	85.0	85.5	85.0	85.5	85.0	85.0	84.5	85.5	84.5
22	85.0	84.5	85.0	84.5	85.5	85.0	85.5	85.0	85.0	84.5	85.5	84.0
23	85.0	84.5	85.0	85.0	85.5	85.0	85.5	85.0	85.0	84.5	85.5	84.5
24	85.0	85.0	85.0	84.5	85.5	85.0	86.0	85.0	85.5	84.5	85.0	84.5
25	85.0	84.5	85.0	85.0	85.5	85.0	86.0	85.0	85.5	84.5	84.5	84.5
26	85.0	84.5	85.0	85.0	85.5	85.0	86.0	85.0	85.5	84.5	84.5	84.5
27	85.0	84.5	85.0	85.0	85.5	85.0	86.0	85.0	85.0	84.5	84.5	84.0
28	85.5	84.5	85.5	84.5	86.0	85.0	85.5	85.0	84.5	84.5	84.5	84.0
29	85.0	85.0	85.0	85.0	86.0	85.0	86.0	85.0	84.5	84.5	84.5	84.0
30	85.0	84.5	85.0	85.0	85.5	85.0	86.0	85.0	84.5	84.0	84.5	84.0
31	---	---	85.0	85.0	---	---	86.0	85.0	85.0	84.5	---	---
MONTH	85.5	84.5	85.5	84.0	86.0	84.5	86.0	84.5	86.0	84.0	85.5	84.0
YEAR	86.0	83.5										

13238500 PAYETTE LAKE AT MCCALL, ID

LOCATION.--Lat 44°54'50", long 116°07'10", in NW¼ sec.8, T.18 N., R.3 E., Valley County, Hydrologic Unit 17050123, at outlet of lake on North Fork Payette River at McCall and at mile 75.4 (121.3 km).

DRAINAGE AREA.--144 mi² (373 km²).

PERIOD OF RECORD.--August 1921 to current year (fragmentary prior to Nov. 23, 1943). Prior to October 1942, published as "at Lardo".

REVISED RECORDS.--WSP 753: 1931. WSP 1013: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,982.73 ft (1,518.74 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 26, 1931, nonrecording gage at site 25 ft (7.6 m) downstream at datum 2.0 ft (0.61 m) higher. Aug. 26, 1931, to Nov. 22, 1943, nonrecording gage at site 75 ft (23 m) downstream at present datum.

REMARKS.--Flow from Payette Lake is regulated within natural range by tainter gates and removable stoplogs of a buttress and slab-type dam completed in November 1943. During period 1923-43 lake was regulated by structure consisting of a series of concrete-filled cribs supporting removable flashboards. Some regulation is reported to have been affected by timber flashboards for several years prior to 1923. Lake area is approximately 5,000 acres (2,020 hm²). No capacity table has been developed. Water is used for irrigation in vicinity of Emmett. No diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height observed, 8.75 ft (2.667 m) July 13, 1935; minimum observed, 0.95 ft (0.290 m) Oct. 3, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 7.41 ft (2.259 m) July 4; minimum recorded, 1.62 ft (0.494 m) Feb. 16-17.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.39	2.57	2.20	1.69	1.78	1.72	1.67	4.53	3.85	6.80	6.83	5.03
2	2.38	2.57	1.97	1.68	1.73	1.72	1.67	4.66	3.89	6.94	6.72	5.00
3	2.35	2.58	1.94	1.67	1.76	1.71	1.65	4.76	3.83	7.20	6.62	4.94
4	2.34	2.60	1.97	1.70	1.73	1.70	1.67	4.92	3.78	7.40	6.51	4.86
5	2.33	2.63	1.95	1.74	1.73	1.74	1.70	5.06	3.78	7.07	6.40	4.79
6	2.32	2.63	1.90	1.73	1.72	1.72	1.74	5.33	3.87	6.77	6.30	4.68
7	2.31	2.64	1.88	1.72	1.70	1.72	1.73	5.39	4.07	6.76	6.21	4.62
8	2.30	2.62	1.88	1.73	1.69	1.71	1.72	5.42	4.33	6.78	6.12	4.52
9	2.27	2.63	1.84	1.74	1.69	1.70	1.76	5.60	4.77	6.81	6.02	4.45
10	2.25	2.62	1.84	1.74	1.69	1.69	1.75	5.34	5.27	6.83	5.93	4.42
11	2.24	2.61	1.82	1.79	1.69	1.70	1.74	5.10	5.78	6.85	5.84	4.34
12	2.23	2.60	1.78	1.80	1.69	1.70	1.74	4.84	6.28	6.86	5.76	4.23
13	2.22	2.61	1.76	1.83	1.69	1.74	1.73	4.70	6.34	6.88	5.68	4.22
14	2.20	2.59	1.76	1.91	1.69	1.78	1.74	4.60	6.34	6.93	5.60	4.11
15	2.27	2.61	1.75	1.90	1.64	1.78	1.76	4.64	6.34	6.97	5.57	3.95
16	2.27	2.58	1.72	1.90	1.63	1.77	1.79	4.61	6.35	7.00	5.57	3.77
17	2.28	2.62	1.71	1.90	1.65	1.76	1.84	4.46	6.38	7.01	5.56	3.60
18	2.31	2.65	1.71	1.89	1.71	1.77	1.92	4.48	6.48	7.02	5.56	3.51
19	2.35	2.58	1.70	1.88	1.74	1.75	2.04	4.61	6.55	7.03	5.58	3.36
20	2.38	2.53	1.69	1.87	1.79	1.76	2.22	4.85	6.54	7.04	5.59	3.23
21	2.39	2.52	1.70	1.84	1.79	1.77	2.46	5.17	6.56	7.05	5.58	3.09
22	2.42	2.52	1.69	1.83	1.79	1.75	2.75	5.53	6.59	7.04	5.56	2.93
23	2.47	2.29	1.67	1.82	1.77	1.75	3.09	5.51	6.56	7.05	5.52	2.79
24	2.47	2.25	1.74	1.81	1.76	1.74	3.50	5.16	6.51	7.04	5.49	2.66
25	2.52	2.22	1.75	1.80	1.75	1.72	3.76	4.85	6.52	7.03	5.42	2.53
26	2.55	2.21	1.73	1.80	1.73	1.72	3.91	4.56	6.51	7.02	5.37	2.43
27	2.56	2.21	1.72	1.80	1.73	1.71	4.01	4.32	6.60	7.01	5.30	2.33
28	2.57	2.21	1.70	1.80	1.73	1.70	4.32	4.11	6.64	6.98	5.24	2.25
29	2.58	2.20	1.69	1.80	1.73	1.70	4.55	3.96	6.70	6.98	5.18	2.17
30	2.57	2.20	1.68	1.80	---	1.71	4.54	3.86	6.75	6.97	5.13	2.10
31	2.58	---	1.68	1.79	---	1.68	---	3.79	---	6.89	5.07	---
MEAN	2.38	2.50	1.79	1.80	1.72	1.73	2.42	4.80	5.69	6.97	5.77	3.70
MAX	2.58	2.65	2.20	1.91	1.79	1.78	4.55	5.60	6.75	7.40	6.83	5.03
MIN	2.20	2.20	1.67	1.67	1.63	1.68	1.65	3.79	3.78	6.76	5.07	2.10

WTR YR 1980 MEAN 3.45 MAX 7.40 MIN 1.63

13239000 NORTH FORK PAYETTE RIVER AT MCCALL, ID

LOCATION.--Lat 44°54'30", long 116°07'10", in SW¼ sec.8, T.18 N., R.3 E., Valley County, Hydrologic Unit 17050123, on left bank at McCall, 0.2 mi (0.3 km) downstream from outlet of Payette Lake, and at mile 75.2 (121 km).

DRAINAGE AREA.--144 mi² (373 km²). Mean altitude, 6,520 ft (1,987 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1908 to June 1917, May 1919 to current year. Prior to October 1942, published as "at Lardo."

REVISED RECORDS.--WSP 963: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,967.75 ft (1,514.169 m) National Geodetic Vertical Datum of 1929 (levels by Idaho Fish and Game). Nonrecording gage at site 1 mi (1.6 km) downstream at different datum prior to Oct. 14, 1908, and Oct. 14, 1908, to Dec. 18, 1923, at sites near present gage at present datum.

REMARKS.--Records good. Flow regulated to some extent since several years prior to 1923 by gates at outlet of Payette Lake 0.2 mi (0.3 km) upstream (see sta 13238500) and several smaller lakes upstream. Diversion for fish hatchery bypasses station and is returned below gage. Records of daily discharge of this diversion published in annual Water-Supply Papers from October 1942 to February 1953. Diversions since 1980 not comparable.

AVERAGE DISCHARGE.--69 years (1909-16, 1920-80), 366 ft³/s (10.4 m³/s), 265,200 acre-ft/yr (327 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,950 ft³/s (140 m³/s) June 19, 1974; maximum gage height, 8.16 ft (2.487 m) June 19, 1974; no flow Nov. 5-8, 1931, Nov. 17-24, 1933, Nov. 14-27, 1935, Oct. 22 to Nov. 11, 1938.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,450 ft³/s (69.4 m³/s) May 9, gage height, 5.84 ft (1.780 m); minimum, 15 ft³/s (0.425 m³/s) Oct. 17, 18, gage height, 1.58 ft (0.482 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

1.5	15	3.0	299
1.7	27	3.5	550
2.0	53	4.0	860
2.3	93	5.0	1,620
2.6	161	6.0	2,550

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	20	99	57	88	82	72	1660	1070	703	240	161
2	19	20	103	57	90	81	71	1690	1100	620	262	158
3	18	20	107	57	91	81	70	1790	1030	799	258	199
4	18	20	103	57	90	81	68	1880	961	1240	251	229
5	18	20	97	65	84	81	72	1990	799	1680	247	240
6	18	20	93	66	82	84	81	2190	538	1470	247	247
7	18	20	90	63	81	82	84	2340	222	597	243	243
8	18	20	87	65	78	81	82	2390	243	481	240	251
9	17	20	84	67	75	79	85	2400	233	376	236	255
10	17	20	79	68	72	78	88	2360	320	347	236	262
11	17	19	76	67	70	78	85	2130	509	274	233	266
12	16	19	72	76	68	78	82	1920	901	278	229	338
13	16	19	69	78	66	81	82	1780	1470	196	226	371
14	16	19	66	85	66	90	82	1690	1720	133	226	366
15	17	19	64	95	67	93	87	1670	1690	140	150	450
16	16	19	63	95	67	90	91	1690	1590	145	91	509
17	16	19	61	96	67	88	101	1590	1560	128	91	471
18	19	20	59	95	76	90	121	1540	1620	115	93	444
19	22	155	57	90	85	87	147	1600	1650	109	93	447
20	22	258	57	87	93	85	193	1760	1680	91	150	441
21	22	226	58	85	99	93	274	1970	1610	84	199	413
22	22	205	57	82	97	91	399	2230	1590	85	199	423
23	22	190	56	81	95	88	586	2380	1510	85	202	410
24	21	175	61	78	91	85	846	2220	1340	85	226	365
25	21	166	66	76	88	81	1030	1940	1020	81	222	327
26	22	155	64	75	85	79	1120	1730	740	74	222	292
27	22	142	61	74	84	81	1230	1530	631	74	222	262
28	22	128	59	71	84	78	1420	1380	649	72	199	234
29	20	117	57	78	84	76	1640	1250	660	71	161	209
30	20	107	56	91	---	76	1690	1160	684	97	161	188
31	20	---	56	87	---	74	---	1090	---	169	161	---
TOTAL	591	2377	2237	2364	2363	2572	12079	56940	31340	10899	6216	9471
MEAN	19.1	79.2	72.2	76.3	81.5	83.0	403	1837	1045	352	201	316
MAX	22	258	107	96	99	93	1690	2400	1720	1680	262	509
MIN	16	19	56	57	66	74	68	1090	222	71	91	158
AC-FT	1170	4710	4440	4690	4690	5100	23960	112900	62160	21620	12330	18790

CAL YR 1979 TOTAL 87662 MEAN 240 MAX 2330 MIN 16 AC-FT 173900
WTR YR 1980 TOTAL 139449 MEAN 381 MAX 2400 MIN 16 AC-FT 276600

13239000 NORTH FORK PAYETTE RIVER AT MCCALL, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.
REMARKS.--Miscellaneous samples of chemical data published for water year 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT
NOV 06...	1115	20	22	7.4	.0	7.0	7	0	2.2	.3	1.3	32
DEC 12...	1430	71	21	--	-2.0	3.5	--	--	--	--	--	--
JAN 23...	0830	80	18	--	-10.0	2.0	--	--	--	--	--	--
MAR 25...	1630	79	21	--	3.0	3.0	--	--	--	--	--	--
MAY 20...	1930	1810	21	6.9	22.5	6.5	6	0	2.1	.3	1.1	26
SEP 18...	1630	439	17	--	10.0	16.0	--	--	--	--	--	--

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
NOV 06...	.2	.4	9	.0	.2	.1	4.4	14	.02	.76	.02	.000
DEC 12...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 23...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 25...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 20...	.2	.4	7	.3	.0	.1	4.9	14	.02	68.4	.03	.010
SEP 18...	--	--	--	--	--	--	--	--	--	--	--	--

13240000 LAKE FORK PAYETTE RIVER ABOVE JUMBO CREEK, NEAR MCCALL, ID

LOCATION.--Lat 44°54'50", long 115°59'10", in NE¼ sec.8, T.18 N., R.4 E., Valley County, Hydrologic Unit 17040123, on left bank 100 ft (30.5 m) upstream from abandoned powerplant, 0.2 mi (0.3 km) upstream from Jumbo Creek, 3.5 mi (5.6 km) upstream from Lake Fork Reservoir dam, 5.5 mi (8.8 km) east of McCall, and at mile 21.0 (33.8 km).

DRAINAGE AREA.--48.9 mi² (127 km²). Mean altitude, 6,950 ft (2,118.4 m).

PERIOD OF RECORD.--October 1945 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,140 ft (1,567 m), from topographic map. Prior to Nov. 10, 1945, nonrecording gage at site 200 ft (61 m) downstream at different datum.

REMARKS.--Records good except those for December and January, which are fair. No diversion above station. Flow regulated by Browns Pond, capacity 1,230 acre-ft (1.52 hm³).

AVERAGE DISCHARGE.--34 years, 147 ft³/s (4.16 m³/s), 40.82 in/yr (1,037 mm/yr), 106,500 acre-ft/yr (131 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,770 ft³/s (78.4 m³/s) June 26, 1971, gage height, 9.15 ft (2.789 m), from rating curve extended above 1,200 ft³/s (34.0 m³/s); minimum, 1.2 ft³/s (34 dm³/s) Dec. 3, 1967; minimum gage height, 1.05 ft (0.320 m) part of each day Nov. 8-9, 1969.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,160 ft³/s (32.9 m³/s) May 22-23, gage height, 7.62 ft (2.323 m); minimum, 1.6 ft³/s (0.045 m³/s) Oct. 18, gage height, 1.25 ft (0.381 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 28 to May 27, Sept. 12-21;
stage-discharge relation affected by ice Nov. 20-22, 27-30, Dec. 10-12,
18, 19, 23, 27, 28, Jan. 7, 8, 18-24, Jan. 27 to Feb. 1)

1.3	1.9	2.5	18	5.0	204
1.5	3.0	2.7	25	5.5	288
1.7	4.4	3.0	39	6.0	421
1.9	6.5	3.5	67	7.0	845
2.1	9.2	4.0	100	8.0	1,520
2.3	13	4.5	144		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.9	20	17	18	27	33	25	639	333	367	50	17
2	9.9	18	18	17	27	33	25	798	387	384	47	20
3	9.7	20	25	17	27	32	24	808	310	675	43	25
4	9.7	19	31	17	26	32	24	835	281	464	41	19
5	9.6	20	25	18	24	31	26	890	264	352	39	17
6	9.6	20	22	17	23	31	27	947	256	308	37	16
7	9.5	19	21	16	22	30	26	862	247	279	35	15
8	9.3	18	21	18	22	28	25	895	263	249	33	15
9	9.1	16	20	19	21	29	28	912	399	229	32	15
10	9.7	17	20	19	21	29	26	708	584	104	30	18
11	9.8	16	17	18	21	30	27	568	666	26	28	26
12	9.7	14	20	23	20	28	29	474	762	73	27	20
13	9.7	15	20	38	20	28	35	464	680	130	26	43
14	9.7	14	19	69	20	31	46	487	671	140	25	55
15	16	14	18	71	20	31	58	536	548	146	26	29
16	21	16	18	52	20	31	65	513	510	130	29	23
17	8.4	20	18	43	21	34	86	431	648	119	27	20
18	2.0	19	18	37	33	30	133	510	718	109	28	26
19	22	16	17	30	49	27	193	613	737	100	28	56
20	29	14	18	24	43	27	277	752	718	94	193	42
21	20	11	18	32	38	29	387	890	718	89	210	55
22	18	13	18	26	34	27	474	1020	732	85	38	39
23	22	17	16	31	32	27	605	953	648	80	25	33
24	24	17	18	30	37	25	732	609	499	76	22	17
25	34	17	18	30	29	26	631	447	444	70	21	6.6
26	67	17	17	28	29	26	536	399	474	65	20	21
27	39	16	15	25	30	27	662	355	411	61	20	22
28	30	15	12	22	34	25	752	339	328	58	19	21
29	25	13	17	23	34	26	867	325	358	54	18	20
30	22	15	18	25	---	25	848	320	393	52	18	20
31	22	---	18	26	---	25	---	308	---	49	17	---
TOTAL	550.3	496	588	881	804	893	7501	19587	14987	5197	1252	771.6
MEAN	17.9	16.5	19.0	28.4	27.7	28.8	250	632	500	168	40.4	25.7
MAX	67	20	31	71	49	34	867	1020	762	675	210	56
MIN	2.0	11	12	16	20	25	24	308	247	26	17	6.6
CFSM	.37	.34	.39	.58	.57	.59	5.11	12.9	10.2	3.44	.83	.53
IN.	.42	.38	.45	.67	.61	.68	5.71	14.90	11.40	3.95	.95	.59
AC-FT	1100	984	1170	1750	1590	1770	14880	38850	29730	10310	2480	1530

CAL YR 1979 TOTAL 37469.3 MEAN 103 MAX 1030 MIN 2.0 CFSM 2.11 IN 28.52 AC-FT 74360
WTR YR 1980 TOTAL 53513.9 MEAN 146 MAX 1020 MIN 2.0 CFSM 2.99 IN 40.71 AC-FT 106100

13244500 CASCADE RESERVOIR AT CASCADE, ID

LOCATION.--Lat 44°31'30", long 116°03'00", in NE¼NE¼ sec.26, T.14 N., R.3 E., Valley County, Hydrologic Unit 17050123, in gate-control structure at south end of Cascade Dam on North Fork Payette River, 0.5 mi (0.8 km) downstream from Willow Creek, 0.8 mi (1.3 km) northwest of Cascade, and at mile 40.2 (64.7 km).

DRAINAGE AREA.--620 mi² (1,600 km²). Mean altitude, 5,960 ft (1,817 m).

PERIOD OF RECORD.--January to December 1948 (fragmentary), January 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (Water and Power Resources Service). National Geodetic Vertical datum of 1929 is 0.66 ft (0.201 m) lower. Prior to Nov. 7, 1958, nonrecording gage at north end of dam at present datum.

REMARKS.--Reservoir is formed by earth-fill dam completed in May 1949. Partial storage began Nov. 7, 1947. Full storage first reached in June 1957. Capacity, 703,200 acre-ft (867 hm³) between elevations 4,766 ft (1,452.7 m), 4.0 ft (1.22 m) above sill of outlet tunnel and 4,828 ft (1,471.6 m), top of spillway gates. Figures given herein represent contents above elevation 4,766 ft (1,452.7 m). Water and Power Resources Service attempts to limit withdrawal to elevation 4,787.5 ft (1,459.23 m), retaining 50,000 acre-ft (61.6 hm³) capacity as dead storage. Contents table computed from tables furnished by Water and Power Resources Service (revised 1950). Water is used for irrigation of lands in the Payette Division of the Boise Project and for power at Black Canyon powerplant near Emmett.

COOPERATION.--Capacity table furnished by Water and Power Resources Service.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 727,000 acre-ft (896 hm³) June 10, 11, 1957, elevation, 4,828.89 ft (1,471.846 m); no contents at times during March and September 1948 (prior to filling of reservoir); minimum after first filling of reservoir in June 1957, 193,000 acre-ft (238 hm³) Feb. 8, 1962, elevation, 4,802.15 ft (1,463.695 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 702,900 acre-ft (867 hm³) July 5, elevation, 4,827.99 ft (1,471.571 m); minimum, 235,900 acre-ft (291 hm³) Oct. 18, elevation, 4,805.16 ft (1,464.613 m).

Capacity table (elevation, in feet, and contents, in acre-feet)

4,805.0	233,500	4,820.0	508,500
4,810.0	313,500	4,825.0	626,000
4,815.0	404,900	4,828.0	703,200

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	295400	242200	255600	269000	---	330700	359800	468800	673300	698400	673300	563800
2	291000	242300	256400	269100	---	331700	360200	476400	671300	698700	670700	560500
3	287300	242300	259000	269300	---	332800	360900	484800	668400	700500	668700	556300
4	283000	242600	260300	269400	---	334700	361400	493200	666400	702100	666100	552400
5	278900	242800	261100	269800	---	335800	363400	501500	664600	702900	664300	548400
6	274900	242900	261700	270200	---	336800	365100	512300	662800	702700	662000	544300
7	270900	243100	262300	270400	---	337600	365800	522500	659400	700300	659900	541100
8	267100	243400	263000	270600	---	338300	366800	533000	655300	698200	657600	537500
9	262500	243500	263700	270900	---	339000	368000	545700	652300	695300	654300	534300
10	258400	243800	264400	271200	---	339500	370300	558000	651000	693200	651500	533100
11	254200	244000	264500	271400	---	340600	371400	568500	652000	692400	647400	530400
12	250200	244300	264500	271800	---	341100	372700	576700	656100	691600	644900	528100
13	246400	244400	264500	273300	---	342200	374600	584400	661700	690800	641100	528100
14	242900	244600	264500	280300	---	345900	376700	592100	668700	691600	638100	526300
15	241800	244700	264500	289200	---	346100	379100	599900	674900	692100	634300	524300
16	239200	244900	264700	292200	---	346300	381400	608200	680600	692900	631000	522500
17	237100	245200	264700	294000	---	346600	384600	615100	685600	692900	626800	520900
18	235900	245500	264700	294900	---	347500	388200	622000	689700	692600	624000	520500
19	237700	245700	264800	295200	---	348200	392300	630500	692600	692400	619500	518900
20	238900	246000	265200	295900	320100	349100	395700	636000	695000	691300	615600	518300
21	239200	246100	265200	296400	321800	349400	400800	644400	695800	690800	612100	516500
22	239500	246300	265500	296700	323200	350600	405900	654300	696600	689200	608200	514700
23	239900	246300	265500	---	324400	351300	410600	664300	697600	689200	603300	512900
24	240200	246600	265800	---	325400	351500	420500	671500	697900	687400	600100	511400
25	240700	248500	267200	---	326100	352200	427400	677500	697600	685800	595800	509600
26	241100	252900	267700	---	326800	352700	433300	681100	697600	684000	591100	507600
27	241400	252900	268500	---	327700	353300	439300	683200	697600	682400	587000	505600
28	241700	253000	268500	---	328800	354000	445400	382200	697600	680900	582700	503700
29	241900	254100	268700	---	329800	356400	454000	679800	698400	679000	577900	501300
30	242000	255300	268700	---	---	357500	461200	677700	698400	677200	573200	499300
31	242200	---	268800	303800	---	359100	---	675100	---	674900	568500	---
MAX	295400	255300	268800	---	---	359100	461200	683200	698400	702900	673300	563800
MIN	235900	242200	255600	---	---	330700	359800	382200	651000	674900	568500	499300
(†)	4805.58	4806.44	4807.30	4809.43	4810.94	4812.58	4817.80	4826.93	4827.80	4826.92	4822.63	4819.58
(‡)	-57400	+13100	-13500	+35000	+26000	+29300	+102100	-213900	+23300	-23500	-106400	-69200

CAL YR 1979............ ‡ -196400
WTR YR 1980............ ‡ +199700

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet, at end of month.

13245000 NORTH FORK PAYETTE RIVER AT CASCADE, ID

LOCATION.--Lat 44°30'44", long 116°01'52". in NE¼NE¼ sec.36, T.14 N., R.3 E., Valley County, Hydrologic Unit 17050123, 0.5 mi (0.8 km) upstream from Beaver Creek, 1.6 mi (2.6 km) downstream from Cascade Dam, and at mile 38.6 (62.1 km).

DRAINAGE AREA.--626 mi² (1,621 km²). Mean altitude, 5,960 ft (1,820 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1941 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,730 ft (1,442 m), from topographic map. Prior to Jan. 28, 1947, nonrecording gages at present or nearby sites at present datum. Nov. 6, 1958, to Sept. 30, 1965, water-stage recorder at site 1.5 mi (2.4 km) upstream at datum 4,734.59 ft (1,443.103 m) National Geodetic Vertical Datum of 1929 (used as a supplementary gage Oct. 1, 1965, to Feb. 8, 1967). Oct. 1, 1965, to current year, gage located at present site and datum.

REMARKS.--Records good. Flow regulated by Payette Lake (see sta 13238500), Lake Fork Reservoir, and Cascade Reservoir 1.6 mi (2.6 km) upstream, beginning November 1947 (see sta 13244500). Diversions above station for irrigation of about 39,000 acres (16,000 hm²) 1966 determination.

AVERAGE DISCHARGE.--39 years, 1,032 ft³/s (29.23 m³/s), 747,700 acre-ft/yr (922 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,320 ft³/s (207 m³/s) May 10, 1947, gage height, 6.29 ft (1.917 m); no flow for part of Oct. 14, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,610 ft³/s (102 m³/s) May 27, gage height, 3.71 ft (1.13 m); minimum, 10 ft³/s (0.28 m³/s) Nov. 10, gage height, -0.08 ft (-0.024 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

0.1	11	1.4	458
0.2	22	1.7	736
0.3	36	2.0	1110
0.5	76	2.5	1790
0.8	165	3.0	2550
1.1	287	4.0	4120

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2150	133	137	137	140	141	142	134	3570	1620	1310	2440
2	2140	141	139	139	141	141	147	134	3560	1620	1310	2430
3	2140	141	141	141	141	139	147	134	3550	1620	1310	2360
4	2140	141	140	141	141	144	147	134	3300	1750	1310	2360
5	2160	139	141	143	141	143	160	134	3000	2250	1310	2300
6	2160	135	140	145	135	139	151	137	3000	2470	1310	2240
7	2140	134	139	141	125	137	138	137	2980	2500	1410	2170
8	2150	134	141	141	124	136	143	138	2980	2500	1470	2190
9	2170	133	140	141	124	138	156	140	2950	2360	1680	2160
10	2190	88	139	141	124	140	151	148	2330	1700	1750	2080
11	2140	14	137	141	127	144	144	149	1260	1190	1890	1990
12	2120	14	139	144	127	136	148	142	747	747	1980	1840
13	2130	14	141	147	127	136	148	141	452	747	1980	1790
14	1780	52	146	153	127	147	145	141	452	420	1960	1750
15	1480	138	142	158	125	149	139	152	458	158	1990	1600
16	1470	141	141	152	127	141	135	165	465	158	2010	1590
17	1220	141	136	152	128	138	137	156	577	155	2020	1530
18	911	141	131	148	147	137	136	151	1380	282	2070	1490
19	499	141	128	148	177	137	135	150	1750	506	2070	1490
20	168	141	127	147	167	136	134	150	2530	586	2080	1490
21	136	141	127	144	147	138	134	150	2900	586	2130	1490
22	69	141	127	144	140	137	134	418	2900	596	2140	1490
23	18	141	125	144	134	141	134	763	2900	663	2240	1490
24	65	138	127	144	131	139	145	1250	2920	791	2300	1490
25	158	137	122	144	132	137	141	1240	2520	923	2300	1490
26	160	137	129	144	135	137	140	1900	2070	923	2320	1490
27	158	137	140	144	136	135	138	3000	1760	923	2360	1490
28	158	137	141	144	139	133	138	3580	1620	986	2410	1520
29	158	137	141	141	140	142	137	3580	1620	1030	2410	1570
30	152	136	141	141	---	140	141	3580	1620	1030	2430	1590
31	131	---	140	141	---	138	---	3570	---	1120	2430	---
TOTAL	36821	3638	4225	4475	3949	4316	4265	25898	64121	34910	59690	54400
MEAN	1188	121	136	144	136	139	142	835	2137	1126	1925	1813
MAX	2190	141	146	158	177	149	160	3580	3570	2500	2430	2440
MIN	18	14	122	137	124	133	134	134	452	155	1310	1490
AC-FT	73030	7220	8380	8880	7830	8560	8460	51370	127200	69240	118400	107900

CAL YR 1979 TOTAL 337114 MEAN 924 MAX 2300 MIN 14 AC-FT 668700
WTR YR 1980 TOTAL 300708 MEAN 822 MAX 3580 MIN 14 AC-FT 596500

13245000 NORTH FORK PAYETTE RIVER AT CASCADE, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.
REMARKS.--Miscellaneous chemical data published for water year 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT
OCT 23...	1235	13	106	--	7.0	9.0	--	--	--	--	--	--
NOV 05...	1015	141	43	7.2	5.0	7.0	13	0	4.5	.5	3.2	36
DEC 12...	1715	141	39	--	-2.0	1.0	--	--	--	--	--	--
JAN 24...	0955	144	53	--	-6.0	1.0	--	--	--	--	--	--
MAR 24...	1530	139	60	--	5.5	7.0	--	--	--	--	--	--
MAY 19...	1535	150	48	--	21.5	17.0	--	--	--	--	--	--
JUL 20...	1500	590	43	7.1	28.5	21.5	11	0	3.3	.7	3.1	35
SEP 20...	1120	1490	--	--	10.5	16.0	--	--	--	--	--	--

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT 23...	--	--	--	--	--	--	--	--	--	--	--	--
NOV 05...	.4	.9	17	.0	.7	.1	3.0	24	.03	9.14	.13	.060
DEC 12...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 24...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 24...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 19...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 20...	.4	1.2	16	.3	.8	.2	6.6	27	.04	43.0	.23	.050
SEP 20...	--	--	--	--	--	--	--	--	--	--	--	--

13246000 NORTH FORK PAYETTE RIVER NEAR BANKS, ID

LOCATION.--Lat 44°06'50", long 116°06'25", in NW¼SE¼ sec.16, T.9 N., R.3 E., Boise County, Hydrologic Unit 17050123, Boise National Forest, on right bank 40 ft (12 m) downstream from highway bridge, 2.5 mi (4.0 km) north of Banks, and at mile 2.8 (4.5 km).

DRAINAGE AREA.--933 mi² (2,420 km²). Mean altitude, 5,80[illegible] ft (1,770 m).

PERIOD OF RECORD.--April 1947 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,081.13 ft (939.128 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow regulated by Payette Lake (see sta 13238500), Lake Fork Reservoir (see sta 13241000), and Cascade Reservoir 37.1 mi (59.7 km) upstream, beginning November 1947 (see sta 13244500). Diversions above station for irrigation of about 50,800 acres or 20,600 hm² (1966 determination).

AVERAGE DISCHARGE.--33 years, 1,352 ft³/s (38.29 m³/s), 979,500 acre-ft/yr (1,208 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,830 ft³/s (250 m³/s) May 11, 1947, gage height, about 13.5 ft (4.11 m), estimated on basis of records for station near Smiths Ferry; minimum recorded, 36 ft³/s (1.02 m³/s) Dec. 21, 1947, gage height, 3.01 ft (0.917 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,990 ft³/s (141 m³/s) May 31, gage height, 10.58 ft (3.225 m); minimum, 60 ft³/s (1.70 m³/s) Nov. 15, gage height, 2.93 ft (0.893 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Jan. 29, 30)

3.0	68	7.0	1,560
3.5	143	8.0	2,310
4.0	242	9.0	3,210
5.0	527	10.0	4,280
6.0	900	11.0	5,550

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2220	212	195	223	238	482	374	1600	4950	2010	1260	2560
2	2210	206	214	223	242	482	409	1630	4900	2000	1320	2580
3	2200	214	240	214	249	482	424	1780	4800	2210	1310	2520
4	2200	216	268	214	263	486	428	1700	4690	2090	1310	2490
5	2220	223	258	216	254	513	538	1690	4250	2460	1310	2470
6	2220	227	247	206	251	469	738	1750	4170	2760	1310	2380
7	2220	223	238	189	247	421	538	1690	4070	2920	1330	2310
8	2210	212	234	206	236	397	459	1730	4030	2900	1430	2300
9	2230	206	234	212	225	377	527	1750	4030	2890	1590	2320
10	2260	199	240	179	218	374	805	1680	3950	2420	1740	2280
11	2250	177	185	189	216	412	601	1600	2620	1670	1810	2320
12	2180	109	177	202	216	400	657	1410	1970	1160	2010	2120
13	2190	88	204	302	214	374	801	1290	1530	961	2010	1990
14	2140	81	210	482	214	437	955	1230	1410	938	2010	2030
15	1610	78	210	657	216	590	1030	1230	1360	477	2030	1840
16	1550	175	199	609	221	510	1070	1490	1280	355	2090	1720
17	1490	191	189	531	240	428	1130	1370	1270	327	2080	1690
18	1130	199	179	472	360	421	1320	1250	1690	312	2140	1610
19	1080	191	181	389	848	389	1450	1230	2340	468	2160	1640
20	538	166	193	349	965	377	1550	1230	2830	695	2150	1630
21	320	164	191	352	815	398	1680	1240	3770	718	2210	1630
22	261	185	189	325	621	398	1660	1320	3840	710	2220	1610
23	208	199	172	302	489	420	1720	2030	3820	710	2300	1590
24	172	191	151	290	421	402	2400	2290	3790	793	2380	1590
25	189	187	104	280	403	381	2390	2450	3660	941	2400	1580
26	322	189	173	261	406	371	1460	2620	2810	975	2390	1580
27	294	170	199	236	421	370	1850	3700	2600	975	2420	1580
28	268	150	195	210	459	361	1680	4600	2120	981	2480	1570
29	256	155	193	200	492	357	1950	4770	2070	1060	2500	1650
30	242	159	177	220	---	380	1750	4790	2060	1060	2530	1680
31	234	---	187	225	---	363	---	4900	---	1060	2540	---
TOTAL	41114	5342	6220	9165	10660	13002	35024	65040	92680	42006	60770	58860
MEAN	1326	178	201	296	368	419	1167	2098	3089	1355	1960	1962
MAX	2260	227	268	657	965	590	2400	4900	4950	2920	2540	2580
MIN	172	78	104	179	214	361	374	1230	1270	312	1260	1570
AC-FT	81550	10600	12350	18180	21140	25790	69470	129000	183800	83320	120500	116700

CAL YR 1979 TOTAL 405043 MEAN 1110 MAX 2470 MIN 78 AC-FT 803400
WTR YR 1980 TOTAL 439889 MEAN 1202 MAX 4950 MIN 78 AC-FT 872500

13247500 PAYETTE RIVER NEAR HORSESHOE BEND, ID

LOCATION.--Lat 43°56'33", long 116°11'45", in NE¼SE¼ sec.15, T.7 N., R.2 E., Boise County, Hydrologic Unit 17050122, on left bank 0.5 mi (0.8 km) downstream from Porter Creek, 0.6 mi (1 km) upstream from concrete highway bridge on State Highway 55, 2 mi (3.2 km) north of Horseshoe Bend, and at mile 60.8 (97.8 km).

DRAINAGE AREA.--2,230 mi² (5,780 km²), approximately. Mean altitude, 5,850 ft (1,783.1 m).

PERIOD OF RECORD.--February 1906 to September 1916, July 1919 to current year. Monthly discharge only for some periods, published in WSP 1317.

REVISED RECORDS.--WSP 533: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,625.61 ft (800.286 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 23, 1912, nonrecording gage at site 1.8 mi (2.9 km) upstream at different datum. Nov. 23, 1912, to Apr. 16, 1953, water-stage recorder at site 1,000 ft (305 m) downstream at datum 2.1 ft (0.640 m) lower.

REMARKS.--Records good. Flow regulated by Deadwood Reservoir beginning November 1930 (see sta 13236000), and Cascade Reservoir 51.9 mi (83.5 km) upstream beginning November 1947 (see sta 13244500), and other reservoirs upstream. Diversions above station for irrigation of about 55,100 acres (22,300 hm²) 1966 determination.

AVERAGE DISCHARGE.--71 years, 3,245 ft³/s (91.90 m³/s), 2,351,000 acre-ft/yr (2,899 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,000 ft³/s (765 m³/s) Dec. 23, 1964, gage height, 16.35 ft (4.983 m); minimum daily, 260 ft³/s (7.36 m³/s) Nov. 14, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,500 ft³/s (297 m³/s) June 22, gage height, 10.70 ft (3.261 m); minimum daily, 260 ft³/s (7.36 m³/s) Nov. 14.

Rating table (gage height, in feet, and discharge, in cubic feet per second)

1.9	440	5.0	2090
2.4	644	7.0	4080
3.0	904	9.0	7070
4.0	1410	11.0	11200

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2570	777	740	829	995	2080	1510	7590	8980	6180	3520	3560
2	2560	755	864	829	1030	2080	1520	7840	9510	6090	3590	3580
3	2540	737	970	768	1060	2120	1530	8490	9010	6480	3540	3620
4	2540	763	992	759	1080	2160	1520	8750	8690	6190	3520	3520
5	2560	785	931	864	981	2240	1700	8950	8320	6160	3500	3480
6	2560	781	864	891	941	2180	2130	9510	8220	6210	3470	3360
7	2560	763	838	669	925	1990	1890	9610	7970	6110	3460	3320
8	2550	737	829	724	888	1860	1710	9200	7850	5910	3530	3330
9	2560	720	820	798	852	1750	1780	9360	8080	5780	3430	3360
10	2580	699	834	843	820	1720	2200	8730	8650	5260	3560	3350
11	2590	540	729	714	828	1810	2000	7830	8060	4560	3570	3670
12	2530	350	520	878	837	1780	2070	6910	7900	4160	3550	3410
13	2510	275	742	1610	859	1670	2420	6400	7570	3900	3540	3220
14	2510	260	772	3130	875	1960	3050	6060	7100	3780	3530	3370
15	2080	350	742	3280	894	2460	3480	6040	6870	3490	3530	3080
16	2060	640	772	2630	913	2140	3800	6390	6430	3360	3600	2860
17	1920	746	720	2190	1030	1900	4140	5940	6480	3320	3530	2590
18	1590	781	690	1860	1610	1910	5110	5850	7230	3260	3540	2360
19	1480	724	665	1480	2990	1790	6070	5980	8530	3340	3500	2480
20	1410	652	724	1200	3510	1700	6990	6340	9250	3480	3460	2430
21	1080	648	746	1200	3230	1830	7910	7850	10200	3470	3470	2510
22	940	648	746	1180	2600	1760	7670	8030	10400	3420	3480	2470
23	900	733	677	1100	2220	1790	8150	9770	10100	3370	3460	2390
24	838	807	690	1080	1940	1750	9580	9300	9430	3400	3530	2360
25	803	746	660	1060	1780	1680	9470	8700	8720	3470	3560	2330
26	1060	733	712	1040	1750	1660	8240	8490	7720	3490	3450	2300
27	1020	600	703	947	1810	1670	8270	8870	7250	3430	3450	2290
28	931	560	623	768	1970	1550	8730	9440	6380	3390	3500	2260
29	887	500	598	743	2100	1540	9310	9430	6090	3430	3540	2300
30	838	610	594	811	---	1570	8420	9260	6040	3420	3550	2340
31	803	---	703	831	---	1520	---	9030	---	3380	3550	---
TOTAL	56360	19420	23210	37706	43318	57620	142370	249140	243030	134690	109010	87500
MEAN	1818	647	749	1216	1494	1859	4746	8037	8101	4345	3516	2917
MAX	2590	807	992	3280	3510	2460	9580	9770	10400	6480	3600	3670
MIN	803	260	520	669	820	1520	1510	5850	6040	3260	3430	2260
AC-FT	111800	38520	46040	74790	85920	114300	282400	494200	482000	267200	216200	173600

CAL YR 1979 TOTAL 848130 MEAN 2324 MAX 6330 MIN 260 AC-FT 1682000
WTR YR 1980 TOTAL 1203374 MEAN 3288 MAX 10400 MIN 260 AC-FT 2387000

13249500 PAYETTE RIVER NEAR EMMETT, ID

LOCATION.--Lat 43°55'50", long 116°26'30", in SW¼NE¼ sec.22, T.7 N., R.1 W., Gem County, Hydrologic Unit 17050122, on right bank 0.3 mi (0.5 km) downstream from Black Canyon Dam, 5 mi (8.0 km) northeast of Emmett, and at mile 38.4 (61.8 km).

DRAINAGE AREA.--2,680 mi^2 (6,940 km^2), approximately.

PERIOD OF RECORD.--June 1925 to current year.

REVISED RECORDS.--WSP 1153: 1946(m), 1948(m).

GAGE.--Water-stage recorder. Datum of gage is 2,400.32 ft (731.617 m) National Geodetic Vertical Datum of 1929 (levels by Water and Power Resources Service).

REMARKS.--Records good except those for January and February, which are fair. Flow regulated by Deadwood Reservoir beginning November 1930 (see sta 13236000), Cascade Reservoir beginning November 1947 (see sta 13244500), other smaller reservoirs, and to some extent by Black Canyon Dam 0.3 mi (0.5 km) upstream where flow is regulated by diversion and gate operation at dam. Diversions above station for irrigation of about 160,000 acres (65,000 hm^2), of which about 43,700 acres (18,000 hm^2) are below station and about 53,000 acres (21,000 hm^2) are in adjacent basins (1966 determination).

AVERAGE DISCHARGE.--55 years, 2,994 ft^3/s (84.79 m^3/s), 2,169,000 acre-ft/yr (2,674 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,700 ft^3/s (926 m^3/s) Dec. 23, 1964, gage height, 15.88 ft (4.840 m); minimum daily discharge, 0.7 ft^3/s (20 dm^3/s) Jan. 7, 1957, gage height, -1.49 ft (-0.454 m), when gates in dam were closed.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,300 ft^3/s (348 m^3/s) Apr. 25, gage height, 9.13 ft (2.783 m); minimum, 181 ft^3/s (5.13 m^3/s) Mar. 17, gage height, 0.69 ft (0.210 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Feb. 22 to Apr. 16)

1.4	415	4.0	2,930
1.7	551	5.0	4,380
2.0	730	7.0	7,830
2.5	1,150	9.0	12,000
3.0	1,690		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1570	983	759	650	1030	2640	1790	7810	9230	5180	1900	1950
2	1550	981	1050	920	1050	2620	1770	7880	9970	5100	2020	2000
3	1580	949	1180	940	1120	2670	1630	8540	9450	5620	1980	2080
4	1580	997	1420	910	1250	2800	1690	8770	8990	5320	1940	2050
5	1630	971	1320	990	1350	2830	1850	8890	8630	5120	1910	2020
6	1640	1000	1130	1300	1350	3040	2450	9290	8610	5170	1900	1980
7	1620	982	988	1100	1350	2660	2260	9450	8260	5070	1860	1980
8	1640	951	841	900	1350	2380	1980	8930	8020	4810	1950	1970
9	1650	921	849	850	1250	2230	1980	9050	8130	4650	1830	1990
10	1680	909	929	1220	1200	2110	2460	8540	8540	4180	1980	2110
11	1690	881	1080	1040	1150	2120	2340	7680	8110	3310	2020	2570
12	1650	838	730	1400	1150	2190	2160	6620	7710	2860	1950	2530
13	1620	754	600	3060	1150	2050	2400	5980	7600	2460	1980	2230
14	1640	751	752	4820	1220	2100	3010	5590	6890	2300	1900	2540
15	1830	721	774	5300	1500	2930	3590	5500	6680	2050	1950	2350
16	2090	752	711	4500	1550	2680	3930	6020	6150	1830	1970	2110
17	1980	989	698	3750	1700	1930	4390	5610	5930	1770	1930	1940
18	1750	1070	629	3000	2600	1600	5490	5380	6520	1740	1910	1740
19	2010	1040	584	2500	3500	1240	6680	5570	7770	1760	1910	1820
20	2190	929	623	2000	5000	1980	7530	5960	8480	1900	1840	1830
21	1370	759	629	1700	5000	2450	8650	6600	9250	1940	1840	1840
22	1150	744	654	1650	3830	2240	8420	7550	9620	1870	1870	1860
23	1120	954	700	1600	3360	2240	8610	9250	9410	1820	1860	1830
24	1120	1080	700	1500	2750	2160	10100	9030	8750	1810	1910	1790
25	1050	1040	660	1400	2410	2050	10800	8560	7980	1890	1950	1760
26	1230	1010	760	1350	2330	2070	8870	8970	7090	1930	1870	1730
27	1350	946	760	1250	2350	2020	8690	9190	6520	1860	1830	1730
28	1170	744	660	1100	2440	1970	9010	9720	5610	1810	1900	1680
29	1130	612	600	950	2680	1840	9640	9800	5150	1850	1920	1700
30	1060	573	560	900	---	1870	8870	9600	5050	1840	1940	1770
31	1010	---	430	950	---	1840	---	9370	---	1820	1950	---
TOTAL	47350	26831	24760	55500	59970	69550	153040	244700	234100	92640	59470	59480
MEAN	1527	894	799	1790	2068	2244	5101	7894	7803	2988	1918	1983
MAX	2190	1080	1420	5300	5000	3040	10800	9800	9970	5620	2020	2570
MIN	1010	573	430	650	1030	1240	1630	5380	5050	1740	1830	1680
AC-FT	93920	53220	49110	110100	119000	138000	303600	485400	464300	183800	118000	118000

CAL YR 1979 TOTAL 689961 MEAN 1890 MAX 5620 MIN 430 AC-FT 1369000
WTR YR 1980 TOTAL 1127391 MEAN 3080 MAX 10800 MIN 430 AC-FT 2236000

NOTE.--No gage-height record Dec. 23 to Jan. 10, Jan. 15 to Feb. 21.

13250000 PAYETTE RIVER NEAR LETHA, ID

LOCATION.--Lat 43°53'47", long 116°37'33", in SE¼SW¼SW¼ sec.31, T.7 N., R.2 W., Gem County, Hydrologic Unit 17050122, on left bank just upstream from county road bridge, 1.1 mi (1.8 km) east of Letha, and at mile 25 (40 km).

DRAINAGE AREA.--2,760 m^2 (7,150 km^2), approximately.

PERIOD OF RECORD.--October 1978 to current year. July to November 1952, March to November 1953 at site 0.6 mi (0.97 km) upstream not equivalent due to inflow between sites.

GAGE.--Water-stage recorder. Altitude of gage is 2,280 ft (695 m), from topographic map.

REMARKS.--Records good. Flow regulated by Deadwood Reservoir (see sta 13236000), Cascade Reservoir (see sta 13244500), and to some extent by Black Canyon Dam about 13.5 mi (21.7 km) upstream. Diversions above station for irrigation of about 190,000 acres (76,900 hm^2), of which 50,000 acres (20,200 hm^2) are located below station. About 53,000 acres (21,400 hm^2) are in adjacent basins (1966 determination).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,100 ft^3/s (314 m^3/s) Apr. 25, 1980, gage height, 13.81 ft (4.209 m); minimum, 390 ft^3/s (11.0 m^3/s) Oct. 19, 1978, gage height, 8.17 ft (2.490 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,100 ft^3/s (314 m^3/s) Apr. 25, gage height 13.81 ft (4.209 m); minimum, 416 ft^3/s (11.8 m^3/s) Dec. 31, gage height, 8.15 ft (2.484 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

8.2	444	11.0	3810
8.5	635	12.0	5930
9.0	1040	13.0	8570
10.0	2190	14.0	11800

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	899	907	686	753	1000	2920	2190	7180	8800	4390	882	1120
2	849	890	995	950	1010	2900	2280	6950	9470	4310	1030	1150
3	907	865	1140	977	1110	2920	2120	7720	9190	4650	995	1230
4	882	907	1410	924	1250	3070	2090	8000	8660	4550	977	1260
5	942	933	1370	968	1340	3080	2310	8110	8170	4290	942	1190
6	933	933	1190	1350	1340	3350	2970	8480	8220	4390	933	1200
7	933	942	1030	1080	1340	3180	3050	8830	7830	4310	916	1210
8	942	907	849	882	1340	2810	2560	8310	7560	4050	977	1150
9	959	873	832	865	1300	2610	2510	8280	7550	3840	899	1180
10	959	857	890	1090	1240	2530	2810	8000	7910	3460	986	1290
11	1000	849	1000	1190	1210	2470	2700	7100	7670	2650	1070	1730
12	986	832	840	1290	1190	2460	2540	6050	7020	2100	1020	1890
13	950	723	615	2890	1190	2440	2760	5300	7080	1670	1010	1640
14	950	710	700	4450	1220	2400	3220	4870	6220	1520	986	1960
15	1090	670	753	5510	1510	2950	3600	4700	6050	1350	995	1840
16	1360	700	745	4930	1580	3080	4010	5150	5550	1040	1010	1540
17	1370	907	700	3940	1670	2490	4290	4990	5280	986	1050	1420
18	1210	1060	671	3230	2500	1780	5150	4680	5620	882	1000	1200
19	1370	1000	594	2530	3230	1530	6240	4800	6840	873	1030	1220
20	1960	910	635	1980	4990	1970	7080	5100	7640	1000	968	1280
21	1340	810	635	1700	5600	2740	8110	5740	8370	1080	950	1250
22	1110	730	642	1650	4370	2680	8000	6540	8860	959	995	1290
23	1060	899	686	1590	3810	2640	7970	8170	8740	890	986	1280
24	1060	1080	700	1500	3250	2510	9130	8570	8110	865	1030	1250
25	968	1070	664	1430	2840	2440	10500	8080	7290	916	1080	1220
26	1090	1020	769	1390	2700	2470	8570	8400	6440	1000	1040	1190
27	1310	970	776	1300	2620	2440	8140	8710	5810	959	942	1180
28	1110	880	650	1140	2610	2330	8370	9220	4950	907	995	1140
29	1050	830	601	1000	2810	2230	8980	9470	4430	882	1040	1150
30	977	700	561	940	---	2300	8450	9220	4270	899	1090	1220
31	959	---	456	1000	---	2280	---	9040	---	857	1130	---
TOTAL	33485	26364	24785	56419	63170	80000	152700	223760	215600	66525	30954	39870
MEAN	1080	879	800	1820	2176	2581	5090	7218	7187	2146	999	1329
MAX	1960	1080	1410	5510	5600	3350	10500	9470	9470	4650	1130	1950
MIN	849	670	456	753	1000	1530	2090	4680	4270	857	882	1120
AC-FT	66420	52290	49160	111900	125300	158700	302900	443800	427600	132000	61400	79080

CAL YR 1979 TOTAL 535952 MEAN 1468 MAX 4330 MIN 456 AC-FT 1063000
WTR YR 1980 TOTAL 1013632 MEAN 2769 MAX 10500 MIN 456 AC-FT 2011000

13250600 BIG WILLOW CREEK NEAR EMMETT, ID

LOCATION.--Lat 44°04'25", long 116°29'10", in SE¼NW¼ sec.32, T.9 N., R.1 W., Payette County, Hydrologic Unit 17050122, Bureau of Land Management lands, 62 ft (19 m) downstream from bridge on Emmett-Council road, 500 ft (152.4 m) upstream from mouth of Four-Mile Creek, 13.5 mi (21.7 km) north of Emmett, and at mile 24.5 (39.4 km).

DRAINAGE AREA.--47.4 mi² (123 km²).

PERIOD OF RECORD.--October 1961 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,910 ft (887 m), from topographic map.

REMARKS.--Records good except those below 10 ft³/s (0.281 m³/s), which are fair.

AVERAGE DISCHARGE.--18 years (1963-80), 23.7 ft³/s (0.671 m³/s), 17,170 acre-ft/yr (21.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,860 ft³/s (52.7 m³/s) Dec. 22, 1964, gage height, 7.61 ft (2.320 m); minimum, 0.97 ft³/s (0.027 m³/s) July 8, 9, 1975, gage height, 1.96 ft (0.597 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 24 or 25, 1957, reached a peak of 2,100 ft³/s (59.5 m³/s), gage height not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 250 ft³/s (7.08 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 12	1315	*1620	45.9	7.54	2.298	Feb. 18	0430	658	18.6	5.52	1.682

Minimum discharge, 2.3 ft³/s (0.065 m³/s) July 24, gage height, 1.70 (0.518 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 27-30, Jan. 28-30)

Oct. 1-Jan. 11

1.9	2.9	2.7	41
2.0	5.1	3.0	69
2.1	8.0	3.5	133
2.4	21	4.0	222

Jan. 11-Sept. 30

1.7	2.3	3.0	130
1.8	4.1	3.5	145
2.0	9.4	4.0	234
2.3	22	5.0	485
2.6	50	6.0	843

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.1	7.0	7.0	15	15	55	26	11	20	5.7	3.5	4.3
2	5.1	6.7	34	16	14	53	25	9.4	25	5.9	3.5	4.7
3	5.3	6.7	88	15	25	88	26	9.4	19	7.0	3.5	4.5
4	5.3	7.3	39	17	41	73	25	9.1	18	5.9	3.5	4.3
5	4.4	7.6	27	141	32	115	29	8.8	67	5.4	3.9	4.1
6	4.6	7.3	22	54	27	92	75	9.1	41	5.2	3.7	3.9
7	4.1	7.0	20	29	38	72	54	8.8	29	5.0	3.7	4.1
8	3.9	7.0	18	26	32	62	46	8.5	24	5.4	3.7	4.1
9	4.1	6.7	16	34	25	54	51	8.2	21	5.2	3.7	4.1
10	4.6	6.7	17	64	22	48	48	8.5	18	5.0	3.9	5.4
11	4.6	6.7	12	33	20	46	44	11	17	4.7	3.5	6.5
12	4.4	6.4	12	747	17	40	40	8.8	16	4.7	3.5	5.0
13	4.8	6.4	11	510	18	36	36	7.6	15	5.0	3.5	5.9
14	4.8	6.4	10	535	17	43	33	6.7	14	5.2	3.7	7.3
15	7.0	6.4	10	391	38	43	29	8.8	12	5.4	3.7	5.2
16	5.9	6.7	9.7	181	57	32	27	14	11	4.7	3.1	4.7
17	5.6	7.3	9.7	174	174	30	25	9.4	9.8	3.9	3.1	4.7
18	5.9	8.0	8.9	105	367	41	22	7.9	8.8	4.1	3.7	5.9
19	12	7.6	8.6	70	278	35	21	7.3	8.2	4.3	4.1	5.9
20	8.0	7.0	8.9	52	278	35	20	7.0	7.9	4.3	4.1	5.4
21	7.3	6.4	14	45	190	85	19	6.7	7.6	4.1	3.9	5.4
22	7.0	6.4	20	37	159	76	19	6.7	7.3	2.8	3.9	5.2
23	8.6	7.3	12	31	145	54	17	8.2	7.0	2.8	3.9	5.2
24	7.0	8.3	14	28	102	45	24	8.8	7.0	3.1	3.9	5.2
25	7.0	8.9	120	26	84	41	19	13	6.7	3.3	3.7	5.2
26	9.3	8.9	49	22	73	39	17	103	6.5	3.7	3.7	5.2
27	7.3	6.5	27	20	67	46	15	56	6.5	3.7	3.9	5.2
28	7.3	5.0	22	6.0	69	37	14	40	6.2	3.9	3.9	5.2
29	7.0	5.3	17	5.2	63	33	13	29	5.9	3.7	3.9	5.2
30	7.0	6.0	14	5.5	---	31	12	25	5.7	3.3	4.1	5.2
31	7.0	---	14	15	---	28	---	22	---	3.7	4.1	---
TOTAL	191.3	207.9	711.8	3449.7	2487	1608	871	497.7	468.1	140.1	115.5	152.2
MEAN	6.17	6.93	23.0	111	85.8	51.9	29.0	16.1	15.6	4.52	3.73	5.07
MAX	12	8.9	120	747	367	115	75	103	67	7.0	4.1	7.3
MIN	3.9	5.0	7.0	5.2	14	28	12	6.7	5.7	2.8	3.1	3.9
AC-FT	379	412	1410	6840	4930	3190	1730	987	928	278	229	302

CAL YR 1979 TOTAL 6385.5 MEAN 17.5 MAX 407 MIN 2.4 AC-FT 12670
WTR YR 1980 TOTAL 10900.3 MEAN 29.8 MAX 747 MIN 2.8 AC-FT 21620

13251000 PAYETTE RIVER NEAR PAYETTE, ID

LOCATION.--Lat 44°02'33", long 116°55'27", in NE¼SE¼SW¼ sec.10, T.8 N., R.5 W., Payette County, Hydrologic Unit 17050122, on right bank just upstream from bridge on U.S. Highway 95, 1.8 mi (2.9 km) south of Payette, and at mile 4.1 (6.6 km).

DRAINAGE AREA.--3,240 mi^2 (8,390 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1935 to current year. Records for January 1895 to July 1897 (published as "at Payette" in 18th and 19th Annual Reports) have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 1397: 1949(m), 1952, 1953-54(m).

GAGE.--Water-stage recorder. Datum of gage is 2,138.44 ft (651.797 m) National Geodetic Vertical Datum of 1929. Aug. 1, 1935, to Aug. 7, 1939, nonrecording gage at site 50 ft (15 m) downstream at present datum.

REMARKS.--Records good. Flow regulated by Deadwood Reservoir (see sta 13236000), Cascade Reservoir beginning November 1947 (see sta 13244500), other smaller reservoirs, and to some extent by Black Canyon Dam 34.6 mi (55.7 km) upstream where flow is regulated by diversion and gate operation at dam. Diversions above station for irrigation of about 196,000 acres (79,000 hm^2) of which about 100 acres (40 hm^2) are by withdrawals from ground water, about 5,100 acres (2,100 hm^2) are located below station, and about 53,000 acres (21,000 hm^2) are in adjacent basins (1966 determination).

AVERAGE DISCHARGE.--45 years, 3,080 ft^3/s (87.23 m^3/s) 2,231,000 acre-ft/yr (2,751 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,900 ft^3/s (875 m^3/s) Dec. 24, 1964, gage height, 13.80 ft (4.206 m); minimum, 71 ft^3/s (2.01 m^3/s) July 1, 1977, gage height, 3.27 ft (0.997 m); minimum daily, 150 ft^3/s (4.25 m^3/s) June 29, 30, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,100 ft^3/s (314 m^3/s) Apr. 25, gage height, 9.36 ft (2.853 m); minimum, 710 ft^3/s (20.11 m^3/s) Jan. 1, gage height, 4.12 ft (1.256 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

4.2	755
4.5	1110
5.0	1760
6.0	3360
8.0	7570
10.0	12700

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1670	1400	943	955	1290	3140	2210	8100	9390	4470	1350	1880
2	1650	1350	1240	1260	1440	3090	2180	7500	9840	4470	1490	1890
3	1670	1350	1530	1310	1570	3130	2200	8200	9920	4690	1510	2040
4	1640	1330	1780	1270	1750	3300	2010	8400	9290	4860	1520	2090
5	1670	1390	1780	1310	1860	3300	2210	8500	8920	4550	1470	2050
6	1680	1350	1650	1740	1740	3630	2690	8900	8970	4650	1430	2080
7	1690	1380	1440	1570	1680	3230	2970	8970	8560	4550	1400	2040
8	1650	1340	1290	1300	1710	2920	2570	8610	8250	4280	1400	1960
9	1670	1300	1220	1290	1590	2750	2450	8490	8080	4100	1400	1980
10	1680	1270	1240	1650	1480	2610	2750	8560	8150	3830	1390	2140
11	1720	1240	1340	1610	1410	2550	2940	7780	8150	3140	1520	2660
12	1740	1220	1350	1910	1390	2670	2640	6720	7520	2610	1490	2920
13	1690	1130	1020	4140	1390	2510	2740	5810	7660	2200	1470	2640
14	1720	1110	992	5340	1440	2460	3110	5360	6840	2060	1440	2970
15	1890	1050	1110	6430	1720	3090	3700	5130	6630	1910	1430	2970
16	2120	1080	1100	5590	1860	3210	4200	5610	6110	1570	1470	2590
17	2250	1200	1040	4510	2010	2800	4390	5740	5590	1450	1570	2480
18	2180	1360	1020	3830	3300	2060	5000	5210	5760	1360	1550	2280
19	2170	1430	919	3110	3760	1860	6140	5230	6770	1340	1510	2170
20	2640	1340	943	2560	5040	2060	7070	5420	7760	1450	1490	2290
21	2050	1190	980	2200	5740	2920	7960	5920	8390	1590	1480	2250
22	1590	1070	992	2090	4710	3010	8150	6650	9050	1470	1520	2290
23	1550	1170	1030	2010	4220	2820	8000	8030	9140	1400	1560	2290
24	1590	1400	1050	1880	3520	2720	8730	9190	8660	1340	1630	2210
25	1510	1450	1060	1810	3080	2560	10600	8800	7830	1330	1680	2180
26	1510	1380	1270	1760	2900	2530	9120	8920	6910	1450	1640	2140
27	1780	1310	1190	1670	2870	2530	9000	9370	6090	1470	1560	2110
28	1640	1160	1070	1390	2940	2460	8600	9690	5400	1430	1600	2120
29	1560	1110	943	1240	3140	2290	9200	9990	4730	1340	1670	2080
30	1490	931	931	1170	---	2320	9200	9820	4490	1360	1750	2060
31	1440	---	766	1260	---	2310	---	9590	---	1350	1860	---
TOTAL	54500	37791	36249	71165	72550	84850	154730	238210	228850	79070	47250	67850
MEAN	1758	1260	1169	2296	2502	2737	5158	7684	7628	2551	1524	2262
MAX	2640	1450	1780	6430	5740	3630	10600	9990	9920	4860	1860	2970
MIN	1440	931	766	955	1290	1860	2010	5130	4490	1330	1350	1880
AC-FT	108100	74960	71900	141200	143900	168300	306900	472500	453900	156800	93720	134600

CAL YR 1979 TOTAL 714870 MEAN 1959 MAX 5870 MIN 766 AC-FT 1418000
WTR YR 1980 TOTAL 1173065 MEAN 3205 MAX 10600 MIN 766 AC-FT 2327000

13251000 PAYETTE RIVER NEAR PAYETTE, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT
NOV 08...	1545	1320	196	8.9	11.0	9.0	57	0	17	3.5	20	49
DEC 10...	1335	1220	211	--	3.0	3.0	--	--	--	--	--	--
JAN 21...	1015	2210	96	--	-.5	2.5	--	--	--	--	--	--
MAR 27...	1730	2460	132	--	8.0	9.0	--	--	--	--	--	--
MAY 22...	1430	6370	63	7.5	23.0	15.5	23	0	7.2	1.1	5.2	32
JUL 15...	1630	1950	134	--	31.5	22.0	--	--	--	--	--	--
SEP 16...	1200	2510	133	--	21.0	17.0	--	--	--	--	--	--

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
NOV 08...	1.2	1.7	83	10	3.3	.7	18	125	.17	446	.26	.030
DEC 10...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 21...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 27...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 22...	.5	.8	26	2.0	.6	.3	14	47	.06	808	.09	.020
JUL 15...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 16...	--	--	--	--	--	--	--	--	--	--	--	--

13254000 LOST VALLEY RESERVOIR NEAR TAMARACK, ID

LOCATION.--Lat 44°57'30", long 116°28'00", in sec. 28, T.19 N., R.1 W., Adams County, Hydrologic Unit 17050124, Payette National Forest, upstream from outlet gates near left end of dam on Lost Creek, 4 mi (6.4 km) west of Tamarack, and 16 mi (26 km) north of Council.

DRAINAGE AREA.--29.4 mi² (76.1 km²).

PERIOD OF RECORD.--May to September 1924, May 1926 to September 1966 and April to September 1980 (fragmentary).

GAGE.--Staff gage. Datum of gage is 4,748.8 ft (1,447.4 m) National Geodetic Vertical Datum of 1929, (river profile survey). Prior to May 1926, at datum 1.4 ft (0.43 m) higher.

REMARKS.--Reservoir is formed by earth dam completed in 1910 and raised 6 ft (1.8 m) in 1929. Permanent spillway crest is at gage height 22.26 ft (6.785 m); flashboard structure built in 1938 to permit storage to gage height 25.9 ft (7.89 m). Bottom of outlet tunnel is at gage height 1.46 ft (0.445 m), but natural flow through reservoir limits withdrawal below about gage height 2.8 ft (0.85 m). Water is used for irrigation of lands in Weiser River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height observed, 26.90 ft (8.199 m) May 14, 1940, June 24, 1963; no storage at times in several years.

EXTREMES FOR CURRENT YEAR.--Maximum gage height observed 26.12 ft (7.961 m) June 4; minimum gage height observed 19.37 ft (5.904 m) Sept. 12.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							---	---	---	---	24.10	---
2							---	---	---	25.74	---	---
3							---	---	---	---	---	---
4							---	---	26.12	---	---	---
5							---	---	---	---	---	19.52
6							---	23.80	---	---	---	---
7							---	---	---	---	---	---
8							---	---	---	---	23.07	---
9							---	---	---	---	---	---
10							---	---	25.91	---	---	---
11							---	---	---	---	---	---
12							---	---	---	---	---	19.37
13							---	---	---	---	---	---
14							---	---	---	---	---	---
15							---	23.00	---	---	---	---
16							---	---	---	---	---	---
17							---	---	---	25.50	---	---
18							---	---	---	---	---	---
19							---	---	25.94	---	---	---
20							---	---	---	---	22.36	---
21							---	---	---	---	---	---
22							---	---	---	---	---	---
23							---	---	---	---	---	---
24							25.00	---	---	---	---	---
25							---	---	25.80	---	---	19.44
26							---	---	---	---	---	---
27							---	---	---	---	---	---
28							---	---	---	---	21.30	---
29							---	24.88	---	---	---	---
30							---	---	---	---	---	---
31							---	---	---	---	---	---
MEAN							---	---	---	---	---	---
MAX							---	---	---	---	---	---
MIN							---	---	---	---	---	---

NOTE.--Gage readings obtained only on days listed above.

13254500 LOST CREEK NEAR TAMARACK, ID

LOCATION.--Lat 44°57'20", long 116°27'55", in SE¼NW¼ sec.28, T.19 N., R.1 W., Adams County, Hydrologic Unit 17050124, Payette National Forest, on right bank 0.1 mi (0.6 km) downstream from dam of Lost Valley Reservoir, 4 mi (6 km) west of Tamarack, at mile 10.2 (16.4 km), and 16 mi (26 km) north of Council.

DRAINAGE AREA.--29.4 mi^2 (76.1 km^2). Mean altitude, 5,460 ft (1,664 m).

PERIOD OF RECORD.--January 1910 to August 1914, May 1920 to September 1921, May 1924 to November 1929 (fragmentary), March 1930 to October 1969, May to September 1980 (discontinued).

REVISED RECORDS.--WSP 833: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,729.6 ft (1,441.58 m) National Geodetic Vertical Datum of 1929 (river-profile survey). Prior to Apr. 1, 1912, nonrecording gage at present site and datum.

REMARKS.--Records good. No diversion above station; practically entire flow diverted below station during irrigation season. Flow regulated since 1910 by Lost Valley Reservoir.

AVERAGE DISCHARGE.--39 years (1930-69), 39.1 ft^3/s (1.107 m^3/s), 28,330 acre-ft/yr (34.9 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 688 ft^3/s (19.5 m^3/s) May 17, 18, 1921, gage height, 4.29 ft (1.308 m); no flow at times when gates in dam were closed.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period April to September, 671 ft^3/s (19.0 m^3/s), Apr. 29, gage height, 3.90 ft (1.189 m), from outside high-water mark; minimum during period April to September, 0.46 ft^3/s (0.013 m^3/s) Sept. 30, gage height, 0.58 ft (0.177 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

1.0	4.4	2.1	81
1.2	9.2	2.5	169
1.5	22	3.0	324
1.8	45	3.5	505

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								360	60	33	53	48
2								340	63	33	53	38
3								320	65	32	53	30
4								310	67	32	52	31
5								300	87	31	52	29
6								298	121	30	52	20
7								284	118	28	52	20
8								258	112	28	52	20
9								246	108	26	52	20
10								239	104	24	51	20
11								221	100	22	51	20
12								194	96	21	51	20
13								175	92	20	52	18
14								161	88	19	52	9.2
15								146	84	19	52	9.5
16								138	80	18	51	9.5
17								126	74	24	51	9.5
18								110	68	34	51	9.5
19								100	66	30	50	9.9
20								100	63	29	50	9.9
21								100	60	28	49	9.9
22								40	46	27	49	9.9
23								40	38	26	49	9.9
24								40	38	31	48	9.9
25								7.0	38	53	48	9.9
26								7.0	38	53	48	9.9
27								7.0	39	53	47	9.9
28								6.5	37	53	47	7.2
29								6.3	36	52	48	.48
30								6.0	35	53	48	.46
31								30	---	53	48	---
TOTAL								4715.8	2121	1015	1562	478.44
MEAN								152	70.7	32.7	50.4	15.9
MAX								360	121	53	53	48
MIN								6.0	35	18	47	.46
AC-FT								9350	4210	2010	3100	949

13258500 WEISER RIVER NEAR CAMBRIDGE, ID

LOCATION.--Lat 44°34'47", long 116°38'20", in SE¼NE¼ sec.1, T.14 N., R.3 W., Washington County, Hydrologic Unit 17050124, on left bank 100 ft (30.5 m) upstream from road bridge, 2.2 mi (3.5 km) northeast of Cambridge, 2.5 mi (4.0 km) upstream from Rush Creek, and at mile 48.7 (78.4 km).
DRAINAGE AREA.--605 mi² (1,567 km²). Mean altitude, 4,650 ft (1,420 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1939 to current year.
REVISED RECORDS.--WRD ID 1971: 1970(M).
GAGE.--Water-stage recorder. Datum of gage is 2,647.00 ft (806.806 m) National Geodetic Vertical Datum of 1929 (levels by Water and Power Resources Service). Aug. 29, 1956, to Aug. 19, 1966, at datum 5.0 ft (1.52 m) higher, Aug. 20, 1966, to July 8, 1976, at datum 3.00 ft (0.914 m) higher. Apr. 23, 1939, to Dec. 21, 1955, at site 135 ft (41.1 m) downstream at different datum. Nonrecording gage at different datum, prior to Apr. 23, 1939, at site 135 ft (41.1 m) downstream and Dec. 22, 1955, to Aug. 28, 1956, at bridge 2.5 mi (4.0 km) downstream.
REMARKS.--Records good. Flow regulated to some extent by Lost Valley Reservoir about 57 mi (92 km) upstream, capacity reported to be 11,000 acre-ft (13.6 hm³) and other smaller reservoirs. Diversions above station for irrigation of about 12,200 acres (4,940 hm²), 1966 determination.
AVERAGE DISCHARGE.--41 years, 652 ft³/s (18.5 m³/s), 472,400 acre-ft/yr (582 hm³/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,100 ft³/s (286 m³/s) Dec. 22, 1955, gage height, 13.9 ft (4.24 m), from floodmark, site and datum then in use; minimum, 7.1 ft³/s (0.20 m³/s) Aug. 21-24, 1977, gage height, 2.23 ft (0.680 m).
EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,300 ft³/s (93.5 m³/s) and maximum (*):

Date	Time	Discharge		Gage height		Date	Time	Discharge		Gage height	
		(ft³/s)	(m³/s)	(ft)	(m)			(ft³/s)	(m³/s)	(ft)	(m)
Feb. 19	0100	*4670	132	10.05	3.063	Apr. 24	2130	3830	108	9.49	2.893

Minimum discharge, 32 ft³/s (0.91 m³/s) Nov. 28, gage height, 2.80 ft (0.853 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Aug. 29 to Sept. 30)

3.0	41	6.0	925
3.3	63	7.0	1570
3.6	99	8.0	2390
4.2	219	10.0	4530
5.0	463		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	86	78	205	237	1260	527	2340	1290	493	96	71
2	48	85	53	180	234	1220	515	2290	1550	474	93	74
3	47	85	144	173	270	1170	531	2290	1330	493	87	86
4	48	87	286	171	298	1140	539	2250	1300	463	79	73
5	51	89	253	380	270	1280	629	2250	1230	418	77	68
6	52	95	230	431	237	1290	947	2340	1230	374	77	65
7	53	92	226	249	229	1070	849	2190	1170	329	80	60
8	50	75	265	276	249	947	781	2010	1110	296	78	56
9	48	90	261	270	247	865	903	2130	1090	278	75	55
10	49	83	262	254	244	802	1040	2100	1090	257	74	59
11	48	80	184	194	232	807	925	1890	1110	236	74	123
12	47	77	164	335	219	742	953	1640	1210	214	72	102
13	45	75	167	1110	226	712	1060	1520	1290	207	70	144
14	44	78	164	2260	211	919	1290	1440	1250	191	66	214
15	50	76	162	2320	249	1150	1490	1520	1170	201	64	140
16	81	79	148	1370	338	925	1580	1640	1090	175	69	108
17	68	98	142	1500	840	833	1750	1460	1080	162	66	98
18	66	112	136	1130	3590	886	2030	1400	1060	150	67	96
19	320	102	127	717	3990	751	2400	1350	1030	150	71	164
20	207	75	136	568	3940	732	2670	1390	987	140	70	128
21	130	60	160	543	3190	981	3010	1430	941	122	71	123
22	99	67	210	456	2230	941	3080	1480	897	98	70	110
23	144	99	167	414	1840	908	3200	1500	870	91	69	104
24	143	107	189	384	1410	807	3600	1210	797	77	65	101
25	117	95	259	377	1260	766	3310	1080	698	71	63	95
26	189	101	267	296	1180	727	2770	1250	661	84	64	92
27	146	67	191	246	1210	722	2770	1380	647	89	63	92
28	115	41	194	148	1290	638	2830	1450	580	91	65	88
29	104	55	138	204	1300	606	3110	1390	535	93	65	87
30	93	65	138	182	---	597	2590	1340	515	88	67	83
31	88	---	196	204	---	551	---	1280	---	89	66	---
TOTAL	2838	2476	5697	17547	31280	27745	53679	52230	30808	6694	2233	2959
MEAN	91.5	82.5	184	566	1079	895	1789	1685	1027	216	72.0	98.6
MAX	320	112	286	2320	3990	1290	3600	2340	1550	493	96	214
MIN	44	41	53	148	211	551	515	1080	515	71	63	55
AC-FT	5630	4910	11300	34800	62040	55030	106500	103600	61110	13280	4430	5870

CAL YR 1979 TOTAL 152164 MEAN 417 MAX 2240 MIN 33 AC-FT 301800
WTR YR 1980 TOTAL 236186 MEAN 645 MAX 3990 MIN 41 AC-FT 468500

13258500 WEISER RIVER NEAR CAMBRIDGE, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.
REMARKS.--Miscellaneous chemical data published for water year 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT
NOV												
07...	1530	104	118	8.3	13.0	9.0	44	0	11	4.1	9.6	42
DEC												
11...	1540	168	147	--	.0	1.5	--	--	--	--	--	--
JAN												
22...	1220	459	108	--	-1.5	.5	--	--	--	--	--	--
MAR												
26...	1800	716	113	--	3.0	4.5	--	--	--	--	--	--
APR												
22...	1530	2960	63	--	23.0	9.5	--	--	--	--	--	--
MAY												
21...	1545	1360	61	7.6	30.0	13.0	23	0	5.9	2.0	3.2	23
JUL												
16...	1455	176	98	--	25.5	21.5	--	--	--	--	--	--
SEP												
17...	1440	98	146	--	24.0	18.5	--	--	--	--	--	--

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
NOV												
07...	.6	1.5	57	8.1	3.3	.1	27	99	.13	27.8	.01	.020
DEC												
11...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
22...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
26...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
22...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
21...	.3	.8	26	.6	.6	.1	23	52	.07	191	.07	.010
JUL												
16...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
17...	--	--	--	--	--	--	--	--	--	--	--	--

13264000 CRANE CREEK RESERVOIR NEAR MIDVALE, ID

LOCATION.--Lat 44°21'26", long 116°36'35", in SE¼SE¼ sec. 19, T.12 N., R.2 W., Washington County, Hydrologic Unit 17050124, at gate-control structure near left end of dam on Crane Creek, 9.5 mi (15.3 km) southeast of Midvale, and at mile 12.5 (20.1 km).

DRAINAGE AREA.--242 mi² (627 km²).

PERIOD OF RECORD.--November 1923 to September 1969, October 1979 to September 1980 (fragmentary).

REVISIONS.--WSP 833: Drainage area.

GAGE.--Nonrecording gage. Altitude of gage is 3,190 ft (972 m), by barometer.

REMARKS.--Reservoir is formed by earth dam completed in 1911 and raised in 1920-21. Spillway crest is at gage height 54.9 ft (16.73 m), and bottom of outlet tunnel is at gage height 6.56 ft (1.999 m). Approximate contents is 51,700 acre-ft (63.7 hm³), between gage height 8.0 ft (2.44 m) and 55.0 ft (16.76 m) based on capacity table computed by the Geological Survey in 1927 and extended above 43.0 ft (13.11 m) by the Idaho Department of Reclamation in 1935. No usable contents below gage height 7.0 ft (2.13 m).

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height observed, 56.3 ft (17.16 m) Feb. 22, 1927; no usable contents Sept. 23, 1928, to Feb. 28, 1939, Sept. 25 to Dec. 1, 1929, Oct. 22 to Dec. 3, 1952, Sept. 3-30, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum gage height observed, 55.2 ft (16.82 m), Feb. 29, Mar. 27, 31; minimum observed, 39.37 ft (12.00) Nov. 14.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---		---		---	---	---
2	---	---	---	---	---	---		---		---	---	---
3	---	---	---	---	---	---		---		---	---	---
4	---	---	---	---	---	---		---		---	---	---
5	40.10	---	---	---	---	---		---		---	---	---
6	---	---	---	---	---	---		---		---	---	---
7	---	39.39	---	---	---	---		---		---	---	---
8	---	39.41	---	---	---	---		---		---	---	---
9	---	---	---	---	---	---		---		---	---	---
10	---	---	---	---	---	---		---		---	---	---
11	---	---	40.10	---	---	---		---		---	---	---
12	---	---	---	---	---	---		---		---	---	---
13	---	---	---	---	---	---		---		---	---	---
14	---	39.37	---	---	---	---		---		---	---	---
15	---	---	---	---	---	---		---		---	---	---
16	---	---	---	---	---	---		---		54.30	---	---
17	---	---	---	---	53.20	---		---		---	---	46.30
18	---	---	---	---	---	---		---		---	---	---
19	---	---	---	---	---	---		---		---	---	---
20	---	---	---	---	---	---		---		---	---	---
21	---	---	---	51.52	---	---		54.99		---	---	---
22	---	---	---	---	---	---		---		---	---	---
23	---	---	---	---	---	---		---		---	---	---
24	---	---	---	---	---	---		---		---	---	---
25	---	---	---	---	---	---		---		---	---	---
26	---	---	---	---	---	---		---		---	---	---
27	---	---	---	---	---	55.20		---		---	---	---
28	---	---	---	---	---	---		---		---	---	---
29	---	---	---	---	55.20	---		---		---	---	---
30	---	---	---	---	---	---		---		---	47.80	46.00
31	---	---	---	---	---	55.20		55.00		52.50	---	---
MEAN	---	---	---	---	---	---		---		---	---	---
MAX	---	---	---	---	---	---		---		---	---	---
MIN	---	---	---	---	---	---		---		---	---	---

NOTE.--Gage readings obtained only on days listed above.

13266000 WEISER RIVER NEAR WEISER, ID

LOCATION.--Lat 44°16'03", long 116°46'16", in NE¼SE¼SE¼ sec.23, T.11 N., R.4 W., Washington County, Hydrologic Unit 17050124, on right bank 0.25 mi (0.40 km) upstream from county road bridge, 2.0 mi (3.2 km) downstream from Crane Creek, 10 mi (16 km) east of Weiser, and at mile 14.9 (24.0 km).

DRAINAGE AREA.--1,460 mi² (3,780 km²), approximately.

PERIOD OF RECORD.--March 1890 to June 1891, December 1894 to October 1896, April to September 1897, March 1898 to November 1899, March 1900 to December 1904, October 1910 to December 1914, October 1952 to current year. Published as "at Weiser" prior to 1900.

REVISED RECORDS.--WSP 1347: 1895-1905, 1953(M).

GAGE.--Water-stage recorder. Datum of gage is 2,206.1 ft (672.419 m) National Geodetic Vertical Datum of 1929. Prior to October 1952, nonrecording gages at several sites downstream within 1.5 mi (2.4 km) of present site at various datums. October 1952 to January 1974, water-stage recorder 1,000 ft (300 m) upstream at different datum. January to October 1974, nonrecording gage at nearby sites and different datums.

REMARKS.--Records good except those for winter period, which are fair. Flow slightly regulated since 1911 by Crane Creek Reservoir 14.3 mi (23.0 km) upstream, capacity about 51,700 acre-ft (63.7 hm³) and other small reservoirs. Diversions above station for irrigation of about 30,400 acres (12,300 hm²), 1966 determination.

AVERAGE DISCHARGE.--37 years (1896, 1899, 1901-4, 1912-14, 1953-80), 1,129 ft³/s (31.97 m³/s), 818,000 acre-ft/yr (1,009 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 19,900 ft³/s (564 m³/s) Dec. 23, 1955, gage height, 11.06 ft (3.371 m); maximum gage height, 16.00 ft (4.877 m) Feb. 14, 1979 (ice jam); minimum observed, 14 ft³/s (0.40 m³/s) Aug. 7, 1911, gage height, 2.80 ft (0.853 m), site and datum then in use; minimum gage height, 1.45 ft (0.442 m) Nov. 29, 1970.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 19, 1932, reached a discharge of about 17,500 ft³/s (496 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,200 ft³/s (289 m³/s) Feb. 19, gage height, 9.82 ft (2.993 m); maximum gage height, 11.15 ft (3.399 m) Jan. 12, from ice jam, minimum daily, 72 ft³/s (2.04 m³/s) Nov. 28.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 22, Nov. 24-Dec. 4,
Dec. 23-26, Dec. 28-Jan. 1, Jan. 8-13, 28-30)

3.4	59	6.0	1920
3.7	127	7.0	3420
4.0	227	8.0	5410
4.5	468	9.0	7800
5.0	828	10.0	10600

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	111	151	231	306	368	2470	865	3110	1860	745	230	219
2	111	148	301	373	439	2330	825	3050	2310	669	237	206
3	113	145	306	343	474	2250	830	3040	2060	661	235	211
4	108	148	379	334	536	2240	893	3040	1960	661	238	232
5	106	154	498	492	563	2240	875	3060	1870	597	246	230
6	111	164	428	1180	505	2910	1440	3180	1840	536	217	221
7	116	171	400	640	525	2210	1420	3170	1790	468	212	207
8	116	157	480	570	543	1950	1270	2910	1700	411	228	202
9	108	148	486	550	545	1780	1250	2980	1670	368	233	177
10	108	142	451	500	517	1640	1660	2950	1710	348	239	197
11	108	135	379	400	490	1570	1450	2770	1760	320	236	212
12	111	133	275	700	449	1480	1420	2420	1840	292	235	291
13	113	130	284	1800	459	1380	1500	2240	2130	275	228	266
14	111	130	271	4650	436	1420	1700	2140	1970	262	223	402
15	118	130	279	4940	451	1840	1920	2150	1880	258	219	375
16	116	127	271	2840	645	1560	2050	2350	1750	228	219	289
17	154	135	250	2870	1670	1260	2200	2180	1730	199	233	256
18	154	167	246	2320	7760	1310	2510	2050	1730	228	236	254
19	174	174	223	1490	4890	1310	2960	2030	1690	245	241	273
20	400	161	238	1160	9060	1140	3260	2100	1610	245	250	326
21	231	133	246	991	7510	1540	3710	2210	1540	234	251	247
22	184	103	379	872	5310	1710	3790	2340	1460	219	248	226
23	177	130	334	753	4800	1390	3970	2420	1360	187	231	215
24	223	184	250	604	3630	1270	4370	2010	1340	243	229	206
25	201	154	395	654	3040	1190	4490	1750	1150	237	233	202
26	191	148	462	604	2800	1130	3670	1820	1050	228	225	195
27	240	116	368	492	2700	1160	3530	2080	1010	233	213	192
28	194	72	310	275	2670	1060	3620	2160	935	238	214	188
29	174	108	284	231	2700	989	3470	2080	854	231	221	181
30	157	171	187	297	---	962	3490	2000	786	234	227	180
31	154	---	208	301	---	912	---	1890	---	233	232	---
TOTAL	4799	4269	10099	34612	70515	49603	70908	75680	48345	10533	7159	7078
MEAN	155	142	326	1117	2432	1600	2364	2441	1612	340	231	236
MAX	400	184	498	4940	9060	2910	4490	3180	2310	745	251	402
MIN	106	72	187	231	368	912	825	1750	786	187	212	177
AC-FT	9520	8470	20030	68650	139900	98390	140600	150100	95890	20890	14200	14040

CAL YR 1979 TOTAL 267230 MEAN 732 MAX 5280 MIN 72 AC-FT 530100
WTR YR 1980 TOTAL 393600 MEAN 1075 MAX 9060 MIN 72 AC-FT 780700

13266000 WEISER RIVER NEAR WEISER, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
NOV 08...	1045	159	151	8.5	4.0	5.5	56	0	13
DEC 10...	1135	458	113	--	2.5	2.5	--	--	--
JAN 21...	1430	952	117	--	4.0	.5	--	--	--
MAR 27...	1400	1180	102	--	8.0	6.5	--	--	--
APR 22...	1055	3950	68	--	22.0	9.5	--	--	--
MAY 22...	0945	2560	66	7.3	21.0	13.5	24	0	6.0
JUL 15...	1910	262	126	--	22.0	26.0	--	--	--
SEP 16...	1445	285	133	--	22.0	20.0	--	--	--

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
NOV 08...	5.6	9.4	37	.6	2.2	72	6.0	2.5	.1
DEC 10...	--	--	--	--	--	--	--	--	--
JAN 21...	--	--	--	--	--	--	--	--	--
MAR 27...	--	--	--	--	--	--	--	--	--
APR 22...	--	--	--	--	--	--	--	--	--
MAY 22...	2.2	3.3	22	.3	1.0	27	1.2	2.3	.2
JUL 15...	--	--	--	--	--	--	--	--	--
SEP 16...	--	--	--	--	--	--	--	--	--

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
NOV 08...	25	107	.15	45.9	.02	.030	--	--
DEC 10...	--	--	--	--	--	--	--	--
JAN 21...	--	--	--	--	--	--	--	--
MAR 27...	--	--	--	--	--	--	--	--
APR 22...	--	--	--	--	--	--	238	2540
MAY 22...	23	56	.08	387	.15	.020	--	--
JUL 15...	--	--	--	--	--	--	--	--
SEP 16...	--	--	--	--	--	--	--	--

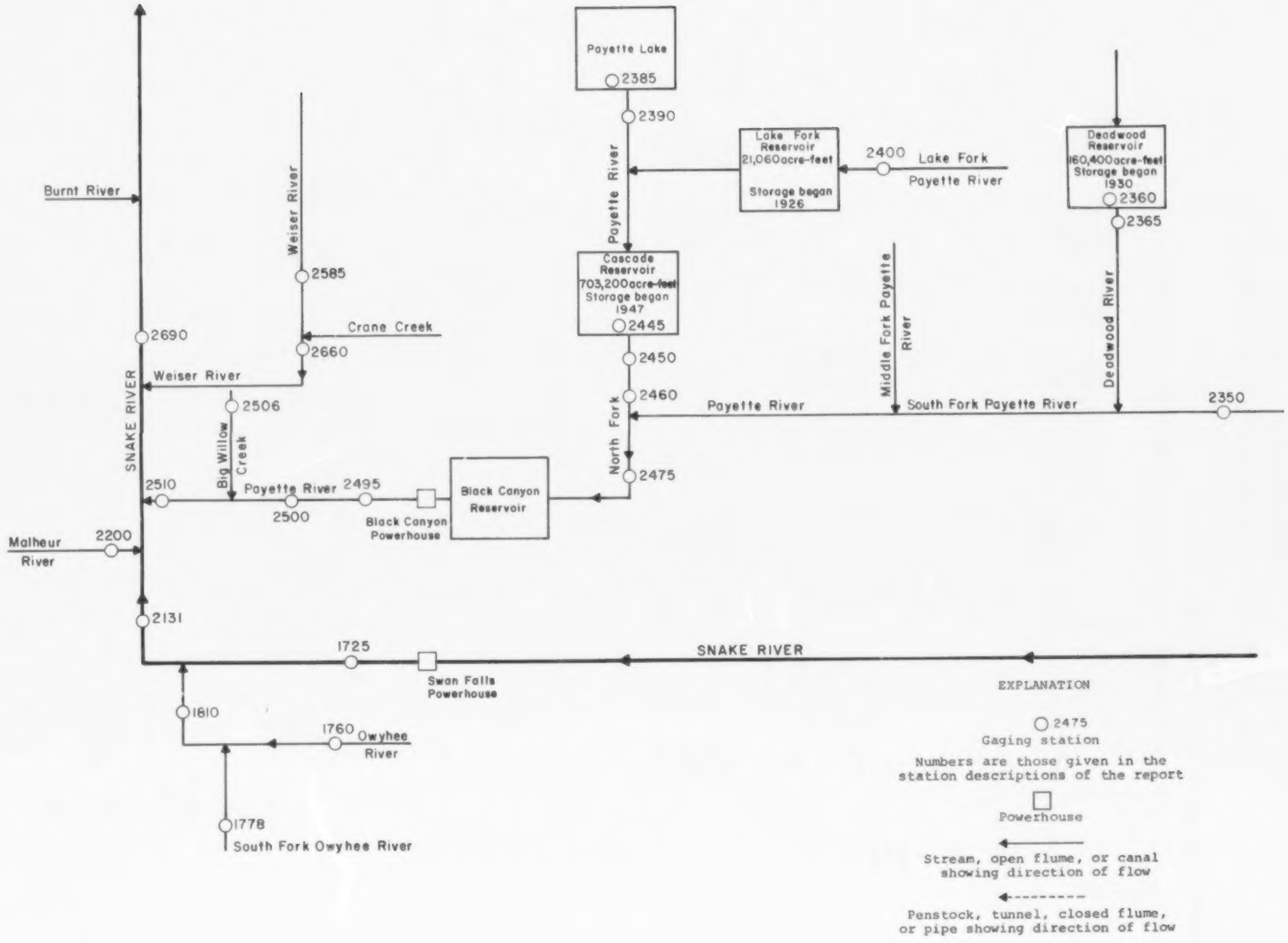

FIGURE 14.--Gaging stations in Payette and Weiser River basins.

13269000 SNAKE RIVER AT WEISER, ID

LOCATION.--Lat 44°14'44", long 116°58'48", in NW¼SE¼ sec.31, T.11 N., R.5 W., Washington County, Hydrologic Unit 17050124, on right bank at upstream side of U.S. Highway 30N bridge at Weiser, 0.7 mi (1.1 km) downstream from Weiser River, and at mile 351.3 (565.2 km).
DRAINAGE AREA.--69,200 mi^2 (179,230 km^2), approximately. Mean altitude, 5,400 ft (1,646 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1910 to current year. Fragmentary gage-height record obtained by U.S. Weather Bureau since 1895. Monthly discharge only for October 1910, published in WSP 1317.
REVISED RECORDS.--WSP 1317: 1918. WSP 1567: 1910(M). WDR ID-76-1: 1975.
GAGE.--Water-stage recorder. Datum of gage is 2,086.64 ft (636.008 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1914, nonrecording gage 0.2 mi (0.3 km) downstream at different datum. Oct. 1, 1914, to Oct. 11, 1933, nonrecording gage, and Oct. 12, 1933, to Apr. 13, 1964, water-stage recorder, at site 0.3 mi (0.5 km) upstream at same datum.
REMARKS.--Records good. Flow regulated by many reservoirs above station. Diurnal fluctuation caused by hydroelectric plants upstream. Diversions above station for irrigation of about 3,650,000 acres (1,477,200 hm^2) of which about 742,000 acres (300,300 hm^2) are by withdrawals from ground water. In addition, approximately 7,300 acres (2,954 hm^2) are irrigated below station by diversion from Weiser River (1966 determination).
AVERAGE DISCHARGE.--70 years, 18,050 ft^3/s (511 m^3/s), 13,077,000 acre-ft/yr (16,100 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 84,500 ft^3/s (2,390 m^3/s) Apr. 29, 1952, gage height, 14.67 ft (4.471 m), site and datum then in use; maximum gage height recorded, 15.55 ft (4.740 m) Dec, 20, 1972 (backwater from ice jam); minimum observed, 4,570 ft^3/s (129 m^3/s) July 1, 1977, gage height, 1.32 ft (0.402 m).
EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 3, 1910, reached a stage of 17.1 ft (5.21 m) at site and datum 0.3 mi (0.5 km) upstream, from reading on old U.S. Weather Bureau gage, discharge, 120,000 ft^3/s (3,398 m^3/s). Flood in June 1894 was considerably higher.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 48,000 ft^3/s (1,359 m^3/s) June 6, gage height, 9.37 ft (2.856 m); minimum, 7,970 ft^3/s (226 m^3/s) July 25, gage height, 2.27 ft (0.692 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Jan. 30)

2.0	6,850	7.0	32,800
3.0	11,200	10.0	52,400
5.0	21,400		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11800	12600	10900	10300	11500	16400	13000	24700	40900	13800	9200	10900
2	11600	12300	10700	11000	10600	16500	12600	24300	41800	12900	9270	11200
3	11600	12400	11400	10800	10500	16400	12600	27700	43800	13100	9330	11700
4	11500	12300	11600	10500	10700	16300	12000	28800	44100	14400	9580	11400
5	11400	13000	12500	11000	11000	15700	12800	27600	44800	13900	9530	11500
6	11400	12300	11600	11600	11000	17100	14000	24900	47700	13800	9390	11900
7	11400	12600	11300	11800	11000	15300	14700	26100	47300	13600	9110	11900
8	11400	12200	11600	11100	11200	15400	18800	26600	47500	12700	9010	11600
9	11400	12300	11700	10600	11300	15000	19700	26100	46000	13100	9030	11400
10	11300	12000	11600	11400	11400	14600	18000	26700	44800	12400	9180	11600
11	11500	11500	11100	11100	11800	14400	19900	26200	42900	11100	9670	13800
12	11600	10400	10300	11700	11400	14400	20200	26000	40000	10200	9490	16500
13	11400	10400	10400	18600	10500	13400	19400	26400	37800	9640	9030	16000
14	11400	11100	10900	22700	10500	13700	19300	26300	33500	9400	8740	17900
15	11400	11500	11200	23800	10600	13400	19600	27700	29600	9230	8720	17600
16	11800	11200	10900	22600	11300	13900	20500	30000	27800	8840	8770	16000
17	12100	10800	10300	23200	12300	13100	21500	30400	25800	8460	8940	16600
18	12500	11600	10600	21100	20300	13100	23600	29100	23500	8340	9390	15700
19	12700	11800	10200	17700	25400	12700	22800	29700	21900	8570	9440	16100
20	14100	11700	10900	15600	27900	11800	23700	28400	24200	8710	9470	15200
21	13400	10800	11000	14500	28600	13800	23400	26600	24500	9100	9660	15200
22	12900	11400	11200	12800	25100	15300	23000	25900	25900	8840	9530	15000
23	13200	11200	11200	12600	23400	15000	23600	26400	25700	8480	9730	15100
24	13900	11400	10900	12700	21200	14000	25700	27500	25000	8060	9480	14800
25	13400	11800	10800	12500	18900	13800	28500	28700	23200	8080	9800	14600
26	13300	11900	11600	12400	16800	13700	27100	30300	21500	8290	9610	14900
27	13300	11600	11000	12100	16600	14100	25500	36100	17200	8510	9830	14300
28	13100	11400	10600	11600	16100	14300	26600	37500	16300	8670	9800	14400
29	12800	11100	10700	11100	16000	13800	27100	40600	14900	8790	9980	13300
30	12800	11000	10600	11100	---	12600	26400	40700	14200	8880	10100	12600
31	12700	---	10100	11100	---	12800	---	42200	---	8990	10400	---
TOTAL	380100	349100	341600	432700	444900	445800	615600	906200	964100	320880	292210	420700
MEAN	12260	11640	11020	13960	15340	14380	20520	29230	32140	10350	9426	14020
MAX	14100	13000	12500	23800	28600	17100	28500	42200	47700	14400	10400	17900
MIN	11300	10400	10100	10300	10500	11800	12000	24300	14200	8060	8720	10900
AC-FT	753900	692400	677600	858300	882500	884200	1221000	1797000	1912000	636500	579600	834500

CAL YR 1979 TOTAL 5200120 MEAN 14250 MAX 32200 MIN 6980 AC-FT 10310000
WTR YR 1980 TOTAL 5913890 MEAN 16160 MAX 47700 MIN 8060 AC-FT 11730000

13269000 SNAKE RIVER AT WEISER, ID--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.
PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: June 1967 to current year.
INSTRUMENTATION.--Temperature recorder since June 1969.
REMARKS.--Interruptions in temperature record due to equipment malfunction.
EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 28.5°C July 25-28, 1975, July 21, 1977; minimum, 0.0°C on several days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT 22...	1330	12900	536	8.5	10.0	12.0	17	10.1	99	100	550
NOV 26...	1400	11900	524	9.0	6.0	3.5	9.5	13.1	106	K6	550
DEC 18...	1300	10600	562	8.6	7.0	4.0	3.2	14.2	111	120	66
JAN 22...	1330	12800	475	8.9	.5	4.0	9.2	13.1	96	590	280
FEB 25...	1330	18100	393	8.6	12.0	7.5	30	11.1	92	40	660
APR 21...	1330	22900	275	8.7	23.5	14.0	30	9.8	98	--	270
MAY 13...	1430	26400	334	8.6	25.0	15.0	17	10.4	106	120	160
JUN 17...	1400	26000	341	8.8	31.0	18.5	1.1	10.5	117	200	85
JUL 21...	1330	9490	471	8.8	28.0	24.5	17	11.6	149	80	K160
AUG 28...	1300	9910	525	8.9	26.0	19.5	19	10.9	124	130	250
SEP 15...	1400	17900	500	8.0	21.0	18.5	26	9.5	108	K2200	K2900

DATE	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)
OCT 22...	190	21	46	18	46	34	1.5	5.2	190	7	168
NOV 26...	190	28	44	19	44	33	1.4	5.0	--	--	160
DEC 18...	190	1	45	19	43	44	1.4	5.1	--	--	190
JAN 22...	160	0	38	15	36	33	1.3	4.8	--	--	160
FEB 25...	140	13	34	14	31	31	1.1	4.5	--	--	130
APR 21...	89	3	21	8.9	21	33	1.0	3.2	--	--	86
MAY 13...	98	5	23	9.9	23	33	1.0	3.3	--	--	93
JUN 17...	120	0	30	10	21	28	.8	3.2	--	--	120
JUL 21...	140	0	34	14	42	38	1.5	5.0	--	--	150
AUG 28...	160	5	38	17	45	36	1.5	5.6	--	--	160
SEP 15...	160	0	38	15	40	35	1.4	5.6	--	--	160

K Results based on counts outside ideal colony count range.

13269000 SNAKE RIVER AT WEISER, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
OCT 22...	69	25	.7	30	333	346	.45	11600	1.5	.050	.69
NOV 26...	66	26	.6	32	335	338	.46	10800	1.0	.010	1.5
DEC 18...	68	26	.6	31	349	358	.47	9990	1.3	.020	1.3
JAN 22...	54	19	.6	32	300	302	.41	10400	1.5	.160	.60
FEB 25...	44	16	.5	29	246	257	.33	12000	1.2	.040	.89
APR 21...	32	12	.4	20	172	171	.23	10600	.22	.070	1.6
MAY 13...	31	12	.5	17	186	177	.25	13300	.25	.070	.89
JUN 17...	34	13	.5	16	193	201	.26	13500	.28	.090	.65
JUL 21...	58	19	.7	23	283	288	.38	7250	.33	.010	1.3
AUG 28...	65	25	.7	25	298	320	.41	7970	.66	.130	1.1
SEP 15...	63	22	.6	27	333	312	.45	16100	1.1	.000	1.1

DATE	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED (MG/L AS C)
OCT 22...	.74	.17	.57	2.2	9.9	.090	.28	.050	--	--	--
NOV 26...	1.5	.99	.51	2.5	11	.060	.18	.000	6.8	--	--
DEC 18...	1.3	.10	1.2	2.6	12	.070	.21	.020	--	14	.9
JAN 22...	.76	.16	.60	2.3	10	.130	.40	.220	5.8	--	--
FEB 25...	.93	.26	.67	2.1	9.4	.190	.58	.080	8.2	--	--
APR 21...	1.7	1.2	.49	1.9	8.5	.050	.15	.030	7.2	--	--
MAY 13...	.96	.59	.37	1.2	5.4	.140	.43	.030	6.6	--	--
JUN 17...	.74	.20	.54	1.0	4.5	.090	.28	.010	--	9.5	.8
JUL 21...	1.3	.71	.59	1.6	7.2	.190	.58	.030	6.5	--	--
AUG 28...	1.2	.83	.37	1.9	8.2	.100	.31	.000	14	--	--
SEP 15...	1.1	.57	.53	2.2	9.7	.170	.52	.080	--	19	--

13269000 SNAKE RIVER AT WEISER, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)
DEC 18...	4	-3	7	300	<300	<100	0	0	<1	0	0
JUN 17...	4	0	4	100	<100	<100	0	--	<1	0	0
SEP 15...	9	1	8	100	<100	<100	0	--	<1	10	10

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)
DEC 18...	0	0	0	<3	0	0	0	150	130	20
JUN 17...	0	2	--	<3	6	3	3	1300	1300	20
SEP 15...	0	1	--	<3	6	2	4	1600	1600	20

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)
DEC 18...	5	2	3	60	50	<10	.0	.0	.0
JAN 22...	--	--	--	--	--	--	--	--	--
APR 21...	--	--	--	--	--	--	--	--	--
JUN 17...	3	3	0	90	90	<10	.1	.1	.0
JUL 21...	--	--	--	--	--	--	--	--	--
SEP 15...	4	0	4	80	80	<10	.0	.0	.0

DATE	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, SUS-PENDED RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
DEC 18...	0	0	1	0	0	0	100	100	<10
JAN 22...	--	--	--	0	--	--	--	--	--
APR 21...	--	--	--	0	--	--	--	--	--
JUN 17...	0	0	0	0	0	0	410	--	<10
JUL 21...	--	--	--	1	--	--	--	--	--
SEP 15...	1	0	1	0	0	0	30	20	<10

13269000 SNAKE RIVER AT WEISER, ID--Continued

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ALDRIN, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-AZINON, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)
DEC										
03...	1600	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB										
25...	1620	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA-THION, TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	METHYL PARA-THION, TOTAL (UG/L)	METHYL TRI-THION, TOTAL (UG/L)	PARA-THION, TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	TOTAL TRI-THION (UG/L)
DEC										
03...	ND	ND	ND	ND	ND	ND	ND	ND	ND	--
FEB										
25...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS)
OCT					
22...	22.0	17.5	.154	<.039	29220
APR					
21...	.240	.124	.067	.032	1731
JUL					
21...	147	126	27.8	.940	755
SEP					
15...	8.74	6.61	7.51	.340	284

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT				
22...	1330	38	1320	--
NOV				
26...	1400	40	1290	--
DEC				
18...	1300	80	2290	--
JAN				
22...	1330	22	760	--
FEB				
25...	1330	8	391	--
APR				
21...	1330	119	7360	83
MAY				
13...	1430	100	7130	75
JUN				
17...	1400	69	4840	72
JUL				
21...	1330	55	1410	--
AUG				
28...	1300	57	1530	--
SEP				
15...	1400	54	2610	93

ND Not detected.

13269000 SNAKE RIVER AT WEISER, ID--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO SEPTEMBER 1980

DATE	NOV 26,79	MAY 13,80	JUN 17,80	JUL 21,80	SEP 15,80
TIME	1400	1430	1400	1330	1400
TOTAL CELLS/ML	18000	8400	11000	26000	40000
DIVERSITY: DIVISION	0.1	1.0	0.9	0.6	1.2
.CLASS	0.1	1.0	0.9	0.6	1.2
..ORDER	0.2	1.3	1.6	1.0	2.0
...FAMILY	0.2	1.5	2.2	1.3	2.1
....GENUS	0.3	1.8	2.9	2.3	2.4

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...CHARACIACEAE										
....SCHROEDERIA	--	-	--	-	59	1	190	1	--	-
...MICRACTINIACEAE										
....GOLENKINIA	--	-	--	-	240	2	580	2	*	0
....MICRACTINIUM	--	-	--	-	240	2	--	-	--	-
...OOCYSTACEAE										
....ANKISTRODESMUS	--	-	--	-	470	4	1200	5	760	2
....CHODATELLA	--	-	--	-	59	1	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	1000	10	--	-	--	-
....OOCYSTIS	--	-	480	6	--	-	--	-	--	-
....SELENASTRUM	--	-	60	1	59	1	--	-	--	-
...SCENEDESMACEAE										
....ACTINASTRUM	--	-	--	-	470	4	1500	6	--	-
....SCENEDESMUS	--	-	480	6	240	2	--	-	760	2
....TETRASTRUM	--	-	720	9	--	-	--	-	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	250	1	420	5	120	1	380	2	570	1
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	--	-	5700#	68	5000#	47	13000#	53	5100	13
....MELOSIRA	--	-	180	2	710	7	1900	8	8300#	21
....STEPHANODISCUS	130	1	--	-	--	-	4600#	18	--	-
....THALASSIOSIRA	17000#	97	--	-	--	-	--	-	--	-
..PENNALES										
...CYMBELLACEAE										
....CYMBELLA	--	-	--	-	59	1	--	-	--	-
...FRAGILARIACEAE										
....ASTERIONELLA	--	-	--	-	470	4	--	-	--	-
....FRAGILARIA	--	-	--	-	830	8	--	-	1100	3
...NAVICULACEAE										
....NAVICULA	--	-	60	1	59	1	580	2	570	1
...NITZSCHIACEAE										
....NITZSCHIA	250	1	120	1	350	3	1200	5	--	-
CRYPTOPHYTA (CRYPTOMONADS)										
.CRYPTOPHYCEAE										
..CRYPTOMONADALES										
...CRYPTOCHRYSIDACEAE										
....CHROOMONAS	--	-	60	1	120	1	--	-	--	-
...CRYPTOMONADACEAE										
....CRYPTOMONAS	--	-	60	1	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....ANACYSTIS	--	-	--	-	--	-	--	-	14000#	35
..HORMOGONALES										
...OSCILLATORIACEAE										
....OSCILLATORIA	--	-	--	-	--	-	--	-	8900#	22
EUGLENOPHYTA (EUGLENOIDS)										
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....TRACHELOMONAS	--	-	60	1	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
 * - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

13269000 SNAKE RIVER AT WEISER, ID--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	18.5	16.5	9.5	8.0	---	---	1.0	1.0	.0	.0	7.0	5.5
2	18.0	16.5	8.5	7.5	---	---	1.5	1.0	.5	.0	7.0	6.0
3	17.5	16.0	9.0	8.0	---	---	2.0	1.5	.5	.5	7.5	6.0
4	16.5	15.0	9.0	9.0	---	---	2.0	2.0	.5	.5	8.0	7.0
5	17.0	15.0	10.5	9.0	---	---	3.0	2.0	1.0	.5	7.5	6.5
6	17.0	15.5	10.5	9.0	---	---	2.0	.5	1.0	1.0	6.5	5.0
7	17.5	16.0	10.0	8.5	---	---	.5	.5	3.0	1.0	7.0	5.5
8	18.0	16.5	9.0	8.0	---	---	.5	.5	2.0	1.0	7.0	5.5
9	17.0	15.5	8.0	7.0	---	---	.5	.5	3.0	1.0	7.5	5.0
10	16.5	15.0	7.5	6.0	---	---	.5	.5	2.5	1.0	8.5	6.0
11	16.0	14.5	7.0	5.5	---	---	.5	.5	2.5	1.0	8.5	7.0
12	16.0	14.5	---	---	---	---	1.0	.5	2.0	1.0	7.0	5.5
13	16.0	15.0	---	---	---	---	.5	.0	1.5	1.0	6.5	5.0
14	---	---	---	---	---	---	2.0	.5	2.5	1.5	7.0	6.5
15	---	---	---	---	---	---	2.5	2.0	3.5	2.5	6.5	5.5
16	---	---	---	---	---	---	3.0	2.5	5.0	3.5	6.0	4.0
17	---	---	---	---	---	---	4.0	3.0	5.0	4.5	6.0	4.5
18	---	---	---	---	2.5	2.0	3.5	2.0	4.5	2.5	8.0	5.5
19	---	---	---	---	2.0	2.0	1.5	.5	3.5	3.0	8.5	6.5
20	---	---	---	---	3.0	2.0	.5	.5	4.0	3.5	7.5	6.0
21	---	---	---	---	4.0	3.0	1.0	.5	4.5	3.5	7.0	6.0
22	11.0	11.0	---	---	4.0	2.5	1.0	.5	4.0	3.5	8.0	5.0
23	11.5	10.5	---	---	2.0	1.0	1.0	.5	4.5	4.0	8.5	6.5
24	12.0	11.0	---	---	1.5	1.0	2.0	1.0	5.0	4.5	8.5	6.0
25	12.0	12.0	---	---	2.5	1.5	3.0	2.0	6.0	4.5	8.5	6.0
26	12.0	10.5	---	---	2.0	1.0	3.0	1.0	7.0	6.0	7.5	6.0
27	11.5	10.0	---	---	1.0	1.0	1.0	.5	7.5	6.0	7.5	5.0
28	11.0	10.0	---	---	2.0	1.0	.5	.0	6.5	6.0	9.0	6.0
29	10.0	9.0	---	---	1.5	.5	.0	.0	7.0	5.0	8.5	7.0
30	9.5	8.5	---	---	1.5	1.0	.0	.0	---	---	8.5	6.0
31	9.5	9.0	---	---	1.5	1.0	.0	.0	---	---	7.5	5.0
MONTH	18.5	8.5	10.5	5.5	4.0	.5	4.0	.0	7.5	.0	9.0	4.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.0	5.5	13.0	9.5	15.5	13.5	23.0	19.5	26.0	22.5	20.5	17.0
2	9.5	6.5	13.5	11.0	14.0	11.5	22.5	20.0	26.0	22.5	19.5	18.0
3	10.0	8.0	14.0	11.0	13.0	11.0	23.5	20.0	23.5	21.0	19.0	16.5
4	11.0	8.0	15.0	12.0	14.5	12.0	23.0	20.0	23.5	19.5	19.5	16.0
5	10.5	9.0	15.0	12.5	14.5	13.5	23.5	20.0	23.5	20.0	21.0	17.0
6	9.0	7.0	14.5	12.0	15.0	13.5	24.0	20.0	23.5	19.5	20.5	18.5
7	8.5	5.5	14.0	11.5	16.0	13.5	24.0	21.5	23.5	15.0	21.5	19.0
8	9.0	6.5	13.5	12.0	17.5	14.5	24.0	21.5	24.0	20.0	22.0	19.5
9	9.5	8.0	12.5	11.0	18.5	16.0	24.0	21.5	24.0	20.0	22.5	20.0
10	10.0	7.5	11.0	10.0	18.5	16.5	25.0	22.0	24.0	20.5	21.5	20.5
11	11.0	7.0	11.0	9.5	18.5	16.5	24.5	21.0	24.5	20.5	21.5	20.0
12	12.5	8.5	14.0	10.0	18.0	16.0	24.0	21.0	24.5	21.5	21.5	19.5
13	13.5	9.5	15.5	11.0	16.0	14.0	25.0	20.5	25.0	21.5	20.5	15.0
14	13.0	10.5	16.0	12.0	16.0	14.5	23.0	20.5	24.0	21.5	19.5	18.0
15	13.0	9.5	15.0	13.0	16.5	12.5	24.0	19.5	23.5	20.5	19.5	17.0
16	13.0	9.5	13.0	11.5	18.5	14.0	25.0	20.5	24.0	20.0	20.0	17.0
17	13.5	9.5	15.0	10.5	20.0	15.5	24.5	21.0	23.5	20.5	20.0	15.0
18	14.0	10.0	17.0	13.0	21.0	17.0	24.0	21.5	22.5	20.5	19.5	18.0
19	13.0	10.5	18.0	14.0	21.5	17.5	24.5	20.5	21.5	18.5	19.0	16.5
20	13.0	9.5	18.0	14.5	21.0	18.0	25.5	21.0	22.5	19.0	18.0	17.0
21	12.5	10.5	17.5	14.5	22.0	17.5	26.5	22.0	23.0	19.5	16.5	15.0
22	11.5	10.5	16.5	14.5	21.5	18.5	27.0	23.5	23.0	20.0	16.5	14.5
23	13.0	10.0	14.5	10.5	19.0	16.5	27.0	23.5	23.0	19.5	17.5	15.0
24	11.5	9.0	10.5	9.0	18.0	14.5	26.5	23.0	23.0	19.5	18.0	15.5
25	10.5	8.0	10.0	9.0	20.0	15.5	26.0	20.0	22.5	19.5	18.0	16.0
26	12.0	9.0	9.5	8.5	18.5	16.5	26.5	22.5	22.0	19.0	17.5	16.0
27	13.5	10.5	11.5	9.0	19.5	14.5	27.0	23.0	21.5	19.5	18.0	15.5
28	13.0	11.0	13.5	10.0	21.0	16.0	25.5	23.0	21.0	18.5	18.5	16.5
29	12.5	10.0	15.0	12.0	22.5	17.5	26.5	22.5	19.5	17.5	18.5	16.0
30	11.0	8.5	15.5	13.0	22.5	19.0	26.5	23.0	19.0	17.0	18.5	16.0
31	---	---	16.0	13.0	---	---	25.5	23.5	19.5	17.0	---	---
MONTH	14.0	5.5	18.0	8.5	22.5	11.0	27.0	19.5	26.0	15.0	22.5	14.5
YEAR	27.0	.0										

13289700 BROWNLEE RESERVOIR AT BROWNLEE DAM, IDAHO-OREGON STATE LINE

LOCATION.--Lat 44°50'08", long 116°53'58", in SE¼SE¼ sec.2, T.17 N., R.5 W., Washington County, Hydrologic Unit 17050201, at Brownlee Dam on Snake River near Idaho end of dam, 1.1 mi (1.8 km) upstream from Wildhorse River, 3.5 mi (5.6 km) downstream from Brownlee Creek, 10.5 mi (16.9 km) east of Halfway, Oreg., and at mile 285.0 (458.6 km).

DRAINAGE AREA.--72,590 mi² (188,000 km²), approximately.

PERIOD OF RECORD.--May 1958 to current year. Published as "at Idaho-Oregon State line" 1958-59.

GAGE.--Remote registering water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Idaho Power Co.). Prior to Feb. 2, 1959, nonrecording gage or levels to water surface at present site and datum.

REMARKS.--Reservoir is formed by earth-fill dam. Storage began May 5, 1958. Dam was completed in fall of 1958. Normal pool elevation, 2,077 ft (633.1 m). Water is used for power generation.

COOPERATION.--Water-stage recorder graph and capacity table furnished by Idaho Power Co.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,454,000 acre-ft (1,790 hm³) Aug. 6, 1962, elevation, 2,078.91 ft (633.652 m); minimum since full capacity was attained June 23, 1959, 441,200 acre-ft (544 hm³) Apr. 25, 1971, elevation, 1,975.20 ft (602.041 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,434,000 acre-ft (1,768 hm³) May 30, June 6, 17, elevation, 2,077.50 ft (633.222 m); minimum, 875,000 acre-ft (1,078 hm³) Feb. 16, elevation, 2,029.45 ft (618.576 m).

Capacity table (elevation, in feet, and contents, in acre-feet)

2,020.0	786,400	2,060.0	1,198,000
2,040.0	977,100	2,080.0	1,469,000

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1319000	1357000	1192000	1131000	1013000	1095000	1056000	1232000	1430000	1424000	1301000	1297000
2	1313000	1355000	1186000	1118000	1003000	1114000	1057000	1225000	1432000	1426000	1299000	1302000
3	1315000	1364000	1184000	1108000	995000	1123000	1060000	1232000	1432000	1426000	1306000	1306000
4	1316000	1363000	1180000	1105000	987000	1130000	1065000	1240000	1432000	1428000	1306000	1306000
5	1322000	1364000	1177000	1105000	979000	1140000	1074000	1249000	1432000	1426000	1302000	1306000
6	1330000	1367000	1175000	1100000	969000	1148000	1086000	1251000	1434000	1425000	1301000	1306000
7	1338000	1371000	1173000	1090000	956000	1152000	1090000	1282000	1432000	1426000	1300000	1308000
8	1340000	1370000	1180000	1080000	947000	1151000	1093000	1312000	1432000	1426000	1300000	1309000
9	1344000	1369000	1187000	1064000	940000	1145000	1106000	1325000	1433000	1426000	1302000	1315000
10	1341000	1368000	1182000	1053000	935000	1144000	1107000	1346000	1432000	1426000	1302000	1325000
11	1344000	1364000	1172000	1038000	930000	1142000	1115000	1358000	1432000	1419000	1299000	1341000
12	1350000	1357000	1160000	1033000	921000	1142000	1130000	1388000	1431000	1414000	1293000	1354000
13	1362000	1346000	1150000	1048000	912000	1138000	1149000	1409000	1431000	1419000	1290000	1367000
14	1370000	1337000	1143000	1073000	893000	1142000	1160000	1416000	1431000	1418000	1280000	1391000
15	1371000	1330000	1144000	1101000	883000	1144000	1162000	1420000	1433000	1419000	1275000	1404000
16	1377000	1315000	1145000	1121000	875000	1141000	1164000	1424000	1432000	1413000	1272000	1411000
17	1384000	1303000	1138000	1141000	877000	1138000	1157000	1430000	1434000	1408000	1272000	1415000
18	1391000	1294000	1139000	1150000	895000	1133000	1159000	1431000	1432000	1399000	1273000	1410000
19	1384000	1285000	1139000	1154000	926000	1123000	1168000	1432000	1430000	1401000	1277000	1409000
20	1376000	1276000	1138000	1156000	961000	1111000	1180000	1432000	1432000	1408000	1279000	1413000
21	1381000	1270000	1128000	1153000	990000	1106000	1183000	1426000	1432000	1400000	1281000	1415000
22	1385000	1268000	1132000	1148000	1015000	1106000	1186000	1427000	1432000	1390000	1285000	1415000
23	1388000	1259000	1137000	1146000	1030000	1109000	1199000	1432000	1433000	1377000	1288000	1413000
24	1389000	1252000	1142000	1136000	1041000	1104000	1214000	1431000	1431000	1366000	1289000	1414000
25	1387000	1252000	1151000	1129000	1048000	1097000	1224000	1432000	1429000	1353000	1283000	1410000
26	1387000	1243000	1151000	1119000	1057000	1087000	1227000	1432000	1432000	1349000	1281000	1407000
27	1381000	1240000	1151000	1111000	1069000	1077000	1227000	1433000	1426000	1339000	1283000	1399000
28	1372000	1229000	1149000	1094000	1070000	1074000	1232000	1429000	1426000	1334000	1284000	1387000
29	1368000	1215000	1146000	1074000	1077000	1075000	1233000	1431000	1424000	1322000	1290000	1377000
30	1364000	1199000	1140000	1049000	---	1070000	1233000	1434000	1421000	1315000	1297000	1372000
31	1362000	---	1135000	1028000	---	1061000	---	1430000	---	1305000	1299000	---
MAX	1391000	1371000	1192000	1156000	1077000	1152000	1233000	1434000	1434000	1428000	1306000	1415000
MIN	1313000	1199000	1128000	1028000	875000	1061000	1056000	1225000	1421000	1305000	1272000	1297000
(†)	2072.30	2060.10	2054.80	2045.09	2049.70	2048.21	2062.75	2077.24	2076.57	2068.15	2067.68	2073.05
(‡)	+39000	-163000	-64000	-107000	+49000	-16000	+172000	+197000	-9000	-116000	-6000	+73000

CAL YR 1979............ ‡ -12000
WTR YR 1980............ ‡ +49000

†Elevation, in feet, at end of month.
‡Change in contents, in acre-feet.

13289960 WILDHORSE RIVER AT BROWNLEE DAM, ID

LOCATION.--Lat 44°51'08", long 116°53'24", in NW¼SE¼ sec.36, T.18 N., R.5 W., Adams County, Hydrologic Unit 17050201, on left bank 0.25 mi (0.40 km) upstream from mouth and 1.1 mi (1.8 km) northeast of Brownlee Dam.

DRAINAGE AREA.--177 mi² (458 km²).

PERIOD OF RECORD.--October 1978 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,820 ft (550 m), from topographic map.

REMARKS.--Records good. Small diversions upstream for irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 865 ft³/s (24.5 m³/s) Apr. 24, 1980, gage height, 7.30 ft (2.225 m); minimum, 15 ft³/s (0.42 m³/s) Nov. 20, 1979, gage height, 4.68 ft (1.426 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 865 ft³/s (24.5 m³/s) Apr. 24, gage height, 7.30 ft (2.225 m); minimum, 15 ft³/s (0.42 m³/s) Nov. 20, gage height, 4.68 ft (1.426 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 25 to Sept. 30;
stage-discharge relation affected by ice Nov. 29 to Dec. 1, Dec. 28-30, and Jan. 26 to Feb. 4)

4.6	13	6.0	210
4.8	22	6.5	395
5.0	34	7.0	661
5.3	62	7.5	1020
5.6	106		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	31	32	39	52	252	129	517	476	134	45	29
2	18	30	34	37	54	235	129	589	561	145	42	30
3	18	30	37	37	50	229	127	572	481	137	41	31
4	18	30	44	37	50	242	129	561	466	132	41	30
5	18	32	45	44	51	252	145	578	427	120	40	27
6	17	31	43	39	50	213	189	636	382	116	40	26
7	17	30	42	36	49	189	174	601	375	108	40	26
8	17	28	45	42	47	177	166	533	360	102	39	25
9	17	28	47	43	46	163	216	501	375	99	37	26
10	16	27	48	43	45	161	245	476	395	94	35	29
11	17	27	39	42	44	177	216	386	400	88	34	40
12	17	26	40	48	44	153	232	324	385	86	32	34
13	17	26	40	102	43	145	276	298	350	83	32	47
14	18	26	41	203	43	180	336	280	325	80	32	72
15	22	25	39	280	44	172	386	320	300	79	31	50
16	26	27	38	181	44	132	390	382	290	68	32	43
17	23	32	38	145	53	129	441	324	310	65	31	39
18	25	32	38	119	229	129	501	320	336	61	34	38
19	44	27	35	88	348	123	550	320	313	61	37	40
20	38	20	38	76	427	120	661	336	280	60	35	40
21	32	20	38	82	301	134	624	399	259	56	33	41
22	31	24	40	77	216	139	583	456	242	54	32	39
23	38	30	32	74	192	172	561	466	222	52	32	37
24	37	31	38	70	174	153	766	352	192	52	31	36
25	34	31	40	68	165	145	661	324	169	51	29	35
26	54	31	34	52	186	145	661	404	169	48	27	34
27	40	26	32	45	222	142	686	461	183	48	27	34
28	36	25	32	37	276	134	712	544	155	47	27	32
29	34	26	31	38	269	142	706	506	139	47	28	32
30	32	29	33	39	---	137	624	476	137	45	28	32
31	31	---	38	47	---	134	---	441	---	43	29	---
TOTAL	821	838	1191	2310	3815	5150	12222	13683	9454	2461	1053	1074
MEAN	26.5	27.9	38.4	74.5	132	166	407	441	315	79.4	34.0	35.8
MAX	54	32	48	280	427	252	766	636	561	145	45	72
MIN	16	20	31	36	43	120	127	280	137	43	27	25
AC-FT	1630	1660	2360	4580	7570	10220	24240	27140	18750	4880	2090	2130

CAL YR 1979 TOTAL 46733 MEAN 128 MAX 595 MIN 16 AC-FT 92690
WTR YR 1980 TOTAL 54072 MEAN 148 MAX 766 MIN 16 AC-FT 107300

13290190 PINE CREEK NEAR OXBOW, OR

LOCATION.--Lat 44°57'13", long 116°52'21", in NE¼SW¼ sec.17, T.7 S., R.48 E., Baker County, Hydrologic Unit 17050201, 1.8 mi (2.9 km) south of Oxbow, and at mile 1.9 (3.1 km).

DRAINAGE AREA.--230 mi² (596 km²), approximately.

PERIOD OF RECORD.--November 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,850.48 ft (564.026 m) National Geodetic Vertical Datum of 1929 (levels by Idaho Power Co.). Prior to Aug. 24, 1967, nonrecording gage at site 1.7 mi (2.7 km) downstream at different datum.

REMARKS.--Records good. Diversions above station for irrigation of about 19,000 acres (7,690 hm²), 1966 determination.

AVERAGE DISCHARGE.--13 years, 372 ft³/s (10.54 m³/s), 269,500 acre-ft/yr (332 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,110 ft³/s (201 m³/s) Feb. 21, 1968, gage height, 9.82 ft (2.993 m); minimum, 10 ft³/s (0.28 m³/s) Aug. 17-24, 1977, gage height, 2.12 ft (0.646 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,520 ft³/s (43.0 m³/s) May 9, gage height, 5.72 ft (1.743 m); minimum, 25 ft³/s (0.71 m³/s) Oct. 9, gage height, 2.35 ft (0.716 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Dec. 25-30, Jan. 5-10)

2.3	20	3.4	189
2.5	34	4.0	409
2.7	53	5.0	985
3.0	95	6.0	1810

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	101	106	123	156	604	229	950	648	455	47	36
2	28	94	101	120	151	571	225	985	677	530	44	41
3	27	100	112	120	166	530	229	1030	604	489	45	45
4	28	100	125	125	172	504	222	1130	577	525	48	39
5	28	105	136	140	158	525	238	1210	561	450	48	37
6	28	103	131	130	146	494	291	1300	561	409	45	38
7	28	100	136	120	146	436	269	1220	525	391	42	37
8	27	93	153	138	151	396	255	1110	520	374	41	37
9	26	93	164	140	151	361	287	1300	593	333	38	36
10	27	90	175	142	153	341	329	1110	626	306	39	40
11	27	90	151	136	146	345	321	964	725	276	37	57
12	27	87	146	172	141	321	353	915	909	238	37	49
13	27	87	134	341	138	321	432	882	862	216	37	101
14	28	87	127	609	134	321	550	849	957	204	35	222
15	31	88	125	755	136	317	620	909	849	195	35	141
16	34	90	123	501	141	291	626	889	792	172	35	105
17	33	105	120	550	325	276	695	811	869	158	33	95
18	39	105	120	465	1130	269	830	849	950	151	35	88
19	141	92	114	353	1280	249	957	875	971	129	38	88
20	84	67	112	298	1240	249	1060	964	950	112	36	90
21	61	67	127	287	1170	337	1180	1210	922	103	36	93
22	59	77	140	252	943	357	1240	1240	869	84	35	87
23	97	100	123	232	786	361	1280	1060	743	65	34	82
24	97	102	125	219	660	317	1320	856	660	58	35	78
25	120	102	130	210	598	302	1070	737	561	57	35	76
26	213	102	114	198	593	295	985	737	525	55	32	72
27	148	86	105	153	604	298	1040	767	489	50	31	70
28	129	57	105	95	637	269	1130	719	418	47	33	66
29	114	78	105	136	626	259	1300	654	441	50	34	64
30	108	110	110	112	---	255	1070	626	465	45	35	65
31	106	---	127	146	---	242	---	604	---	44	35	---
TOTAL	1998	2758	3928	7576	12978	11013	20633	29462	20819	6771	1170	2175
MEAN	64.5	91.9	127	244	448	355	688	950	694	218	37.7	72.5
MAX	213	110	175	755	1240	604	1320	1300	971	530	48	222
MIN	26	57	101	95	134	242	222	604	418	44	31	36
AC-FT	3960	5470	7790	15030	25740	21840	40930	58440	41290	13430	2320	4310

CAL YR 1979 TOTAL 107640 MEAN 295 MAX 1800 MIN 25 AC-FT 213600
WTR YR 1980 TOTAL 121203 MEAN 331 MAX 1320 MIN 26 AC-FT 240600

13290450 SNAKE RIVER AT HELLS CANYON DAM, IDAHO-OREGON STATE LINE

LOCATION.--Lat 45°15'05", long 116°41'50", in SE¼SE¼ sec.33, T.3 S., R.49 E., unsurveyed (Willamette meridian), Wallowa County, Hydrologic Unit 17050201, Wallowa-Whitman National Forest, on left bank 0.2 mi (0.3 km) upstream from Hells Canyon Creek, 0.4 mi (0.6 km) downstream from Deep Creek, 0.6 mi (1.0 km) downstream from Hells Canyon Dam, 15.5 mi (24.9 km) northeast of Homestead, Oreg., and at mile 247.0 (397.4 km).
DRAINAGE AREA.--73,300 mi^2 (190,000 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1965 to current year.
REVISED RECORDS.--WDR ID-78-2: 1969-70, 1972-76; WRD ID-79-2: 1972-73 (m).
GAGE.--Water-stage recorder. Datum of gage is 1,400.00 ft (426.720 m) National Geodetic Vertical Datum of 1929 (levels by Idaho Power Co.).
REMARKS.--Records good. Flow regulated by many reservoirs above station with a total usable capacity of more than 10,000,000 acre-feet (12,300 hm^3), the most effective of which is Brownlee Reservoir 38 mi (61 km) upstream (see sta 13289700). Diurnal fluctuations caused by Hells Canyon powerplant. Diversions above station for irrigation of about 3,820,000 acres (1,550,000 hm^2) of which 742,000 acres (300,000 hm^2) are by withdrawals from ground water (1966 determination).
AVERAGE DISCHARGE.--15 years, 20,650 ft^3/s (584.8 m^3/s), 14,960,000 acre-ft/yr (18,400 hm^3/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 75,800 ft^3/s (2,150 m^3/s) Apr. 15, 1971, gage height, 81.55 ft (24.856 m); minimum, 1,580 ft^3/s (44.7 m^3/s) Mar. 19, 1967, gage height, 59.9 ft (18.26 m); minimum daily, 4,360 ft^3/s (123 m^3/s) May 8, 1977.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 48,600 ft^3/s (1,380 m^3/s) June 12, gage height, 76.33 ft (23.265 m); minimum, 6,970 ft^3/s (197 m^3/s) Aug. 9, gage height, 63.66 ft (19.404 m); minimum daily discharge, 8,660 ft^3/s (245 m^3/s) Dec. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13000	13700	13900	12300	15800	9460	14000	30700	40000	16800	13800	11700
2	15400	14800	11300	20400	13100	9000	12600	30500	39900	15500	11400	12300
3	10300	11500	13200	17000	15000	13900	13100	27100	41600	16900	9460	9460
4	10900	9980	12800	12800	16700	14200	12400	29700	41600	16800	10500	12300
5	12000	12500	14100	10200	16200	13600	10400	30800	42600	18300	10100	11800
6	9980	11200	13800	12500	20600	15200	9370	26900	47100	18600	10700	13800
7	9850	11500	13800	18200	17600	15800	12700	20900	46400	19200	9540	11800
8	9710	12700	10200	16900	14900	18600	16400	21000	44300	15600	10200	12100
9	9900	11900	10000	19100	14100	18300	14700	20700	44700	17600	9540	9500
10	10300	11200	12200	17600	14000	20100	18300	20900	41900	17900	9160	10500
11	11400	12900	14000	22600	18300	19900	18100	20900	46100	14900	13600	9020
12	10400	13300	16600	13400	16900	17300	15100	20700	46800	16000	12600	8760
13	10000	16000	14800	10300	17000	14200	10400	21300	41900	12000	12500	9460
14	9900	16500	13600	11300	21800	13400	17200	26900	39400	11900	14300	9540
15	9830	14600	11300	11200	17900	12600	20600	30100	34600	11000	14100	12600
16	9650	19700	10500	14000	11600	16300	22600	30600	36600	11100	11200	14200
17	9790	16200	14900	14800	12700	16600	27900	30300	33700	15700	9100	15500
18	9810	15600	10500	20400	14000	17700	26700	30700	31100	14500	10400	18700
19	14000	17300	9120	17700	13700	19600	22800	31500	28500	10200	9210	19500
20	13500	14400	11600	14100	15000	19900	21500	33200	27300	9790	9310	16600
21	11900	15000	16100	18300	20200	17600	27600	33900	29200	10600	9310	12400
22	14900	14300	9690	17400	16900	16800	29100	31800	30500	18200	9350	19600
23	13600	16100	9160	17600	17000	14800	24700	30000	31400	15200	9330	16100
24	12000	11500	10200	16900	18400	19900	22900	29800	30600	16200	9330	15700
25	12500	11700	8660	16200	19700	19500	25500	31000	28300	16000	10900	19500
26	14100	16200	9580	15300	13700	19400	30000	31900	25500	12800	13300	19100
27	16100	18300	10300	16500	12900	22100	30500	35800	25000	13100	9640	18500
28	16500	16600	11300	23800	17100	16900	30500	36900	19500	14200	9370	20500
29	16700	16400	12400	24500	17600	12800	30600	38400	17200	14600	9230	21600
30	13900	17400	13400	23200	---	18900	30600	38000	20000	14800	8960	19200
31	13000	---	12200	23100	---	21700	---	40100	---	15000	8960	---
TOTAL	375020	430980	375210	519600	470400	516060	618870	913000	1053300	460990	328400	431340
MEAN	12100	14370	12100	16760	16220	16650	20630	29450	35110	14870	10590	14380
MAX	16700	19700	16600	24500	21800	22100	30600	40100	47100	19200	14300	21600
MIN	9710	9980	8660	10200	11600	9000	9370	20700	17200	9790	8960	8760
AC-FT	743900	854800	744200	1031000	933000	1024000	1228000	1811000	2089000	914400	651400	855600

CAL YR 1979 TOTAL 5774990 MEAN 15820 MAX 30900 MIN 6470 AC-FT 11450000
WTR YR 1980 TOTAL 6493170 MEAN 17740 MAX 47100 MIN 8660 AC-FT 12880000

13290450 SNAKE RIVER AT HELLS CANYON DAM, IDAHO-OREGON STATE LINE--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1970 to current year.
REMARKS.--Miscellaneous chemical data published for water year 1974.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT 23...	1030	14200	483	8.0	11.5	17.0	.70	6.2	68	<1	110
NOV 27...	1100	22400	515	8.3	.5	10.0	1.0	7.9	74	K2	180
DEC 19...	1200	9960	505	8.6	6.0	7.0	1.2	9.1	78	<1	K15
JAN 23...	1330	19400	504	8.5	3.5	4.0	1.4	11.3	88	K1	32
FEB 26...	1100	17800	435	8.2	12.0	4.0	3.0	11.8	94	K1	170
APR 23...	1015	29900	403	8.8	16.5	10.0	3.9	11.5	107	K2	240
MAY 14...	1200	26800	271	8.3	17.5	14.0	2.2	8.9	91	K1	K4
JUN 18...	1115	31100	323	8.2	23.0	16.0	1.8	7.7	82	K3	K2
JUL 22...	1330	21500	315	7.7	37.0	20.0	.60	7.1	82	56	23
AUG 27...	1330	9420	346	8.1	26.0	21.0	1.3	6.2	73	<1	49
SEP 16...	1300	17000	408	8.0	23.0	20.0	1.0	9.0	103	K1	26

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)
OCT 23...	150	15	37	15	35	32	1.2	5.2	170	0	139
NOV 27...	180	12	43	18	44	46	1.4	5.4	--	--	170
DEC 19...	170	0	39	18	42	47	1.4	5.1	--	--	180
JAN 23...	160	0	39	16	39	33	1.3	4.8	--	--	170
FEB 26...	170	18	41	16	35	30	1.2	4.4	--	--	150
APR 23...	130	11	31	13	30	32	1.1	3.9	--	--	120
MAY 14...	89	4	21	8.8	19	31	.9	3.1	--	--	85
JUN 18...	110	4	29	10	21	28	.9	3.3	--	--	110
JUL 22...	110	7	27	9.5	20	28	.8	3.2	--	--	100
AUG 27...	120	6	29	11	29	34	1.2	3.9	--	--	110
SEP 16...	130	0	31	12	32	35	1.2	4.1	--	--	130

K Results based on count outside ideal colony count range.

13290450 SNAKE RIVER AT HELLS CANYON DAM, IDAHO-OREGON STATE LINE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)
OCT 23...	63	21	.6	22	305	286	.41	11700	1.1	.020	.51
NOV 27...	60	21	.6	27	330	326	.45	20000	1.2	.070	.52
DEC 19...	63	23	.6	27	316	330	.43	8500	.93	.210	.99
JAN 23...	62	21	.6	29	321	319	.44	16800	1.2	.000	.49
FEB 26...	52	20	.5	29	274	294	.37	13200	1.3	.130	2.8
APR 23...	46	16	.4	25	238	240	.32	19200	.47	.190	.74
MAY 14...	26	11	.4	19	172	160	.23	12400	.76	.120	.46
JUN 18...	32	13	.6	14	184	190	.25	15500	.30	.190	.67
JUL 22...	32	13	.5	12	177	179	.24	10300	.27	.000	2.2
AUG 27...	43	15	.5	17	139	216	.19	3540	.38	.000	.77
SEP 16...	51	16	.5	19	218	247	.30	10000	.71	.000	.57

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, TOTAL (MG/L AS PO4)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED (MG/L AS C)
OCT 23...	.53	.14	.39	1.6	7.2	.070	.21	.060	6.6	--	--
NOV 27...	.59	.00	.62	1.8	7.9	.070	.21	.060	4.7	--	--
DEC 19...	1.2	.00	1.2	2.1	9.4	.090	.28	.080	--	5.0	.2
JAN 23...	.49	.00	.99	1.7	7.5	.080	.25	.120	4.3	--	--
FEB 26...	2.9	2.1	.76	4.2	19	.070	.21	.070	3.6	--	--
APR 23...	.93	.07	.86	1.4	6.2	.060	.18	.020	6.8	--	--
MAY 14...	.58	.19	.39	1.3	5.9	.060	.18	.030	3.3	--	--
JUN 18...	.86	.08	.78	1.2	5.1	.040	.12	.030	--	7.7	.2
JUL 22...	2.2	1.9	.35	2.5	11	.110	.34	.040	2.9	--	--
AUG 27...	.77	.23	.54	1.2	5.1	.060	.18	.060	6.1	--	--
SEP 16...	.57	.03	.54	1.3	5.7	.080	.25	.070	--	6.1	.3

13290450 SNAKE RIVER AT HELLS CANYON DAM, IDAHO-OREGON STATE LINE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)
DEC											
19...	6	0	6	200	<200	<100	0	0	<1	10	10
JUN											
18...	4	0	4	0	0	<100	0	--	<1	0	0
SEP											
16...	7	1	6	0	0	<100	0	0	2	0	0

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)
DEC										
19...	0	0	0	<3	0	0	9	80	70	10
JUN										
18...	0	2	--	<3	4	1	3	200	180	20
SEP										
16...	0	0	--	<3	3	2	1	120	--	<10

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)
DEC									
19...	9	5	4	60	60	<10	.0	.0	.0
JAN									
23...	--	--	--	--	--	--	--	--	--
APR									
23...	--	--	--	--	--	--	--	--	--
JUN									
18...	2	2	0	10	<10	<10	.1	.1	.0
JUL									
22...	--	--	--	--	--	--	--	--	--
SEP									
16...	3	3	0	20	20	<10	.0	.0	.0

DATE	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, SUS-PENDED RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
DEC									
19...	0	0	0	0	0	0	40	40	<10
JAN									
23...	--	--	--	0	--	--	--	--	--
APR									
23...	--	--	--	0	--	--	--	--	--
JUN									
18...	0	0	0	0	0	0	10	<10	<10
JUL									
22...	--	--	--	2	--	--	--	--	--
SEP									
16...	0	0	0	0	0	0	20	10	<10

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS)
DEC					
19...	2.32	1.93	.187	.018	2086
APR					
23...	11.0	7.65	6.78	.077	494
JUN					
18...	.354	.197	.010	.050	15700
SEP					
16...	11.7	8.35	59.6	6.21	56.2

13290450 SNAKE RIVER AT HELLS CANYON DAM, IDAHO-OREGON STATE LINE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO SEPTEMBER 1980

DATE	NOV 27,79	MAY 14,80	JUN 18,80	JUL 22,80	SEP 16,80
TIME	1100	1200	1115	1330	1300
TOTAL CELLS/ML	600	1700	210	460	2500
DIVERSITY: DIVISION	1.4	1.1	0.7	1.7	0.9
.CLASS	1.4	1.1	0.7	1.7	0.9
..ORDER	0.0	2.0	1.2	1.7	0.9
...FAMILY	0.0	2.4	1.2	2.3	1.0
....GENUS	0.0	3.3	1.2	3.2	1.1

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...CHARACIACEAE										
....SCHROEDERIA	5	1	--	-	--	-	--	-	--	-
...OOCYSTACEAE										
....ANKISTRODESMUS	15	2	77	5	--	-	39	8	52	2
....CHODATELLA	--	-	52	3	--	-	13	3	13	1
....DICTYOSPHAERIUM	--	-	--	-	--	-	26	6	--	-
....KIRCHNERIELLA	5	1	--	-	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	--	-	39	8	--	-
....SELENASTRUM	--	-	13	1	--	-	--	-	--	-
...SCENEDESMACEAE										
....SCENEDESMUS	45	7	130	8	--	-	100#	22	--	-
....TETRASTRUM	--	-	100	6	--	-	52	11	52	2
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	26	2	--	-	--	-	13	1
...VOLVOCACEAE										
....PANDORINA	--	-	410#	25	--	-	--	-	--	-
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	30	5	220	13	26	13	77#	17	77	3
....MELOSIRA	220#	36	230	14	--	-	--	-	300	12
....STEPHANODISCUS	--	-	120	7	--	-	13	3	--	-
..PENNALES										
...FRAGILARIACEAE										
....ASTERIONELLA	--	-	90	5	--	-	--	-	--	-
....FRAGILARIA	45	7	140	8	150#	75	--	-	--	-
....SYNEDRA	--	-	13	1	--	-	--	-	--	-
...NAVICULACEAE										
....NAVICULA	5	1	--	-	--	-	--	-	--	-
...NITZSCHIACEAE										
....NITZSCHIA	--	-	26	2	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)										
.CRYPTOPHYCEAE	20	3	--	-	--	-	--	-	--	-
..CRYPTOMONADALES										
...CRYPTOMONADACEAE										
....CRYPTOMONAS	220#	36	--	-	13	6	26	6	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....ANACYSTIS	--	-	26	2	13	6	64	14	1900#	79
EUGLENOPHYTA (EUGLENOIDS)										
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....TRACHELOMONAS	--	-	--	-	--	-	13	3	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

13293800 SALMON RIVER ABOVE REDFISH LAKE CREEK, NEAR STANLEY, ID

LOCATION.--Lat 44°09'50", long 114°53'10", in NE¼ sec.25, T.10 N., R.13 E., Custer County, Hydrologic Unit 17060201, Sawtooth National Forest, at U.S. Highway 93 crossing and 4.5 mi (7.2 km) southeast of Stanley. Temperature recorder is on right bank 1.4 mi (2.3 km) upstream and 6 mi southeast of Stanley.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--Water years 1973, 1975, 1977 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: July 1978 to current year.

INSTRUMENTATION.--Temperature recorder since July 13, 1978.

REMARKS.--No temperature record Jan. 16 to Feb. 11 and Mar. 1-26 due to equipment malfunction. Miscellaneous chemical data published water years 1973, 1975, 1977.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 20.0°C Aug. 6, 8, 1978, July 17, 23, 26, 1979; minimum, 0.0°C on many days during winter months.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 19.5°C July 23; minimum, 0.0°C on many days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	HARDNESS (MG/L AS CACO3)
OCT 02...	1430	188	176	--	18.0	12.0	--	--	--	--
JAN 16...	1030	195	169	8.0	<-5.0	.0	.60	11.0	96	59
MAY 12...	1700	982	91	7.6	13.0	9.0	.60	8.5	93	40
SEP 15...	1050	296	208	--	7.0	8.5	--	--	--	--

DATE	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)
OCT 02...	--	--	--	--	--	--	--	--	--	--
JAN 16...	5	21	1.6	4.4	14	.3	.5	66	0	54
MAY 12...	2	14	1.2	2.4	11	.2	.4	46	0	38
SEP 15...	--	--	--	--	--	--	--	--	--	--

DATE	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)
OCT 02...	--	--	--	--	--	--	--	--	--	--
JAN 16...	1.1	3.9	.6	.8	.08	.060	.31	.37	.45	2.0
MAY 12...	1.8	3.3	.5	.5	.02	.000	.35	.35	.37	1.6
SEP 15...	--	--	--	--	--	--	--	--	--	--

DATE	PHOSPHORUS, ORTHOPHOSPHATE DISSOL. (MG/L AS P)	PHOSPHORUS, ORTHOPHOSPHATE DISSOL. (MG/L AS PO4)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
OCT 02...	--	--	--	--	--	--	--	--	--
JAN 16...	.010	.03	2	0	--	3	2	.0	20
MAY 12...	.020	.06	3	0	4	3	1	.0	10
SEP 15...	--	--	--	--	--	--	--	--	--

13293800 SALMON RIVER ABOVE REDFISH LAKE CREEK, NEAR STANLEY, ID--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	13.5	7.0	6.0	3.0	1.5	.0	2.0	1.0	---	---	---	---
2	12.5	7.5	5.0	1.0	2.5	1.0	2.0	.5	---	---	---	---
3	11.5	5.0	6.0	3.5	4.5	1.5	3.0	1.0	---	---	---	---
4	12.0	5.5	6.5	4.5	3.5	2.0	3.5	1.0	---	---	---	---
5	12.5	6.0	6.5	4.5	3.0	.5	3.0	.5	---	---	---	---
6	11.5	6.0	6.5	1.0	4.0	2.0	.5	.0	---	---	---	---
7	12.0	7.0	6.0	2.0	4.5	3.0	.0	.0	---	---	---	---
8	12.5	6.5	5.0	1.5	4.5	2.0	1.0	.0	---	---	---	---
9	12.0	6.0	4.5	1.0	3.5	1.0	1.0	.5	---	---	---	---
10	12.0	5.5	5.0	1.5	3.5	.0	.0	.0	---	---	---	---
11	11.5	6.0	4.5	1.0	.0	.0	.0	.0	---	---	---	---
12	12.0	6.0	4.5	.5	.5	.0	.5	.0	3.5	.0	---	---
13	11.0	6.0	3.5	.5	1.0	.0	1.0	.0	6.0	.5	---	---
14	11.0	6.5	4.0	.0	2.0	.0	3.0	1.0	5.5	2.0	---	---
15	9.5	7.5	3.5	.0	3.0	.5	3.0	1.0	5.0	2.5	---	---
16	10.5	6.5	4.5	.5	2.5	.5	---	---	6.5	1.0	---	---
17	8.5	5.5	4.5	3.0	3.0	.5	---	---	5.0	.0	---	---
18	7.5	5.5	3.0	1.0	2.5	.0	---	---	6.5	.0	---	---
19	7.5	5.5	3.5	.5	2.5	.0	---	---	6.5	2.0	---	---
20	7.5	4.5	1.0	.0	3.5	2.0	---	---	6.5	.0	---	---
21	7.0	4.5	.5	.0	3.0	2.0	---	---	6.0	.0	---	---
22	6.5	4.0	1.5	.0	3.0	1.0	---	---	6.0	3.0	---	---
23	7.5	5.5	3.0	1.0	1.0	.0	---	---	6.0	.0	---	---
24	9.0	6.0	2.0	.5	.5	.0	---	---	5.0	.0	---	---
25	9.0	6.0	2.5	.5	2.0	.5	---	---	8.0	1.5	---	---
26	8.5	5.0	2.5	.5	1.5	.0	---	---	5.5	.5	---	---
27	6.5	3.0	.5	.0	.0	.0	---	---	5.5	1.0	5.0	1.5
28	7.5	4.5	.0	.0	.0	.0	---	---	5.5	.0	7.0	.0
29	5.5	3.0	.0	.0	.0	.0	---	---	---	---	8.5	2.0
30	5.5	1.5	.5	.0	.0	.0	---	---	---	---	3.5	.5
31	6.0	3.5	---	---	1.5	.0	---	---	---	---	6.5	.0
MONTH	13.5	1.5	6.5	.0	4.5	.0	3.5	.0	8.0	.0	8.5	.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.0	2.0	10.5	3.5	10.5	6.5	13.5	9.5	17.5	10.5	15.0	6.5
2	9.5	3.0	10.5	4.5	10.5	6.5	14.0	9.0	18.5	10.0	11.0	8.0
3	7.5	2.5	11.5	4.5	10.5	5.0	14.0	9.5	17.0	10.5	15.0	7.5
4	8.0	2.0	12.0	4.0	11.5	6.0	15.5	9.5	17.0	8.5	15.0	6.5
5	6.5	3.5	12.0	4.5	9.5	6.0	16.0	10.0	17.5	8.5	15.5	7.5
6	5.0	2.0	9.0	5.0	11.0	6.0	16.5	9.0	17.0	9.0	14.0	8.0
7	9.5	1.0	9.0	5.0	12.0	6.0	15.5	10.5	17.5	9.0	13.5	10.0
8	9.0	2.0	10.5	5.5	15.0	6.5	15.0	10.5	17.5	9.0	16.0	10.0
9	6.5	4.0	8.0	5.5	14.0	7.5	17.0	10.0	17.5	9.0	15.5	9.5
10	7.5	1.0	7.5	4.5	13.5	7.5	16.5	10.5	17.5	9.0	12.0	10.5
11	10.5	2.0	9.5	5.0	13.0	8.5	17.0	9.5	18.0	9.0	12.5	9.5
12	10.5	2.0	10.0	4.5	11.0	7.5	17.0	10.5	17.0	9.0	13.5	8.0
13	12.0	3.0	9.5	4.5	11.5	6.0	17.0	10.0	17.5	9.0	13.0	8.5
14	11.0	4.0	10.0	5.0	9.5	6.0	14.0	9.5	17.0	9.5	14.0	8.5
15	11.5	4.0	8.5	5.0	12.5	7.0	17.0	8.5	14.0	10.5	14.0	8.0
16	12.0	3.0	7.0	4.5	15.0	7.0	17.5	9.5	17.0	10.0	14.0	7.5
17	12.0	3.5	10.5	4.5	15.5	8.0	17.5	11.0	16.5	9.0	14.0	7.5
18	12.0	4.0	12.0	5.0	12.5	8.5	16.0	9.5	14.0	10.0	11.0	8.0
19	12.0	4.0	13.0	6.5	14.0	8.0	17.5	10.0	14.5	8.0	12.0	7.5
20	12.0	4.0	13.5	6.5	14.0	8.5	18.5	10.0	16.5	7.5	9.0	7.5
21	11.0	4.0	13.5	6.5	15.0	8.5	19.0	11.0	16.0	8.5	11.0	6.5
22	8.5	4.0	11.0	7.5	14.5	9.0	18.0	11.0	14.5	10.0	11.5	5.5
23	9.5	3.5	9.0	5.5	12.5	9.5	19.5	12.0	16.5	9.5	13.0	7.5
24	7.0	4.5	8.5	4.5	14.0	7.5	18.5	11.0	17.0	8.5	11.5	5.5
25	9.5	3.5	7.0	4.5	15.5	8.5	18.5	10.5	16.0	9.0	12.5	5.5
26	10.5	3.0	7.5	4.0	13.0	9.5	18.5	10.0	15.0	8.0	12.0	6.0
27	10.0	3.0	8.0	4.5	14.0	7.5	19.0	10.5	16.0	9.5	13.0	7.0
28	10.0	3.0	10.5	4.5	15.0	7.5	17.5	10.5	12.5	7.0	12.5	7.0
29	7.5	4.5	10.5	5.5	15.5	8.5	15.5	12.5	11.5	6.5	12.5	6.0
30	9.0	3.0	10.5	6.0	12.5	10.0	18.0	11.0	13.0	8.0	13.0	7.0
31	---	---	12.0	6.5	---	---	15.5	10.5	13.5	7.0	---	---
MONTH	12.0	1.0	13.5	3.5	15.5	5.0	19.5	8.5	18.5	6.5	16.0	5.5
YEAR	19.5	.0										

13293890 REDFISH LAKE CREEK AT OUTLET, NEAR STANLEY, ID

LOCATION.--Lat 44°08'45", long 114°54'48", in SW¼SW¼SW¼ sec.35, T.10 N., R.13 E., Custer County, Hydrologic Unit 17060201, Sawtooth National Recreation Area, on left bank 350 ft downstream from bridge at outlet of Redfish Lake.
PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: December 1978 to September 1980 (discontinued).
INSTRUMENTATION.--Temperature recorder since Dec. 5, 1978.
EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 19.5°C July 22-23, 27; minimum, 0.5°C on several days during March and April.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	16.5	14.0	8.5	7.5	4.0	3.0	2.5	2.0	1.0	1.0	2.0	1.0
2	15.0	14.0	8.5	7.0	3.0	2.0	2.0	2.0	1.0	1.0	1.5	1.0
3	15.0	13.0	8.5	7.5	4.0	3.0	2.0	2.0	1.5	1.0	1.5	1.0
4	16.0	13.0	8.0	7.5	3.5	2.5	2.0	2.0	1.5	1.0	1.5	1.0
5	15.5	13.0	9.0	7.5	4.0	3.5	2.0	1.5	1.0	1.0	1.5	1.0
6	15.5	13.5	8.5	7.5	4.0	3.5	2.0	1.5	1.5	1.0	1.5	1.0
7	15.5	13.5	8.5	7.0	4.5	4.0	2.0	1.5	1.5	1.0	1.5	1.0
8	15.5	13.5	8.0	7.0	4.5	4.0	1.5	1.5	1.5	1.0	1.5	1.0
9	15.0	13.0	7.5	6.5	4.5	3.0	1.5	1.5	1.0	1.0	2.0	1.0
10	15.5	13.0	8.5	6.5	3.5	2.5	1.5	1.5	1.5	1.0	2.0	1.0
11	15.0	13.0	7.0	6.0	3.5	3.0	1.5	1.0	1.5	1.0	1.0	1.0
12	15.5	13.0	7.5	5.0	3.5	3.0	1.5	1.0	1.5	1.0	2.0	1.0
13	14.5	13.0	6.5	6.0	4.0	2.5	1.5	1.5	1.0	1.0	1.5	1.0
14	15.0	13.0	7.0	5.5	4.0	3.0	1.5	1.5	1.0	1.0	1.5	1.0
15	13.5	13.0	7.0	5.5	4.0	3.5	1.5	1.5	1.5	1.0	1.5	1.0
16	13.0	12.5	6.0	5.5	4.0	3.5	1.5	1.5	1.5	1.0	1.5	1.0
17	12.5	11.5	6.0	5.5	4.0	3.0	1.5	1.5	1.0	1.0	1.5	1.0
18	12.0	11.0	6.0	5.0	4.0	3.0	1.5	1.5	1.0	1.0	1.5	1.0
19	11.0	10.5	6.0	5.0	4.0	3.0	1.5	1.5	1.0	1.0	1.5	1.0
20	10.5	10.0	5.0	4.0	3.5	3.0	1.5	1.5	1.5	1.0	2.0	.5
21	10.5	10.0	4.5	3.5	3.5	2.5	1.5	1.5	1.0	1.0	2.0	1.0
22	10.0	9.5	4.5	3.5	4.0	3.0	1.5	1.5	1.5	1.0	2.0	1.0
23	10.5	10.0	4.0	4.0	3.5	1.5	1.5	1.5	1.0	1.0	2.0	1.0
24	11.0	10.0	4.0	3.5	2.0	1.5	1.5	1.5	1.0	1.0	2.0	1.0
25	11.0	9.0	3.5	3.5	2.5	1.0	1.5	1.0	2.0	1.0	2.0	1.0
26	11.0	9.5	4.0	3.5	3.0	2.0	1.5	1.0	1.5	1.0	1.5	1.0
27	10.0	9.0	3.5	3.0	3.0	2.5	1.5	1.0	1.5	1.0	1.5	1.0
28	10.0	9.5	3.5	3.0	3.5	2.5	1.0	1.0	1.5	1.0	2.0	1.0
29	9.5	8.5	3.5	2.5	3.0	2.5	1.0	1.0	2.0	1.0	2.0	1.0
30	9.0	8.0	4.0	3.0	3.0	2.5	1.0	1.0	---	---	1.0	1.0
31	9.5	8.5	---	---	2.5	2.5	1.0	1.0	---	---	2.0	1.0
MONTH	16.5	8.0	9.0	2.5	4.5	1.0	2.5	1.0	2.0	1.0	2.0	.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	2.0	.5	3.5	3.0	9.5	7.0	13.5	12.5	19.0	16.5	17.5	13.5
2	2.0	1.0	3.5	3.0	9.5	7.0	13.0	11.5	19.0	16.0	14.5	13.5
3	1.5	1.0	4.0	3.5	9.5	7.0	13.0	11.5	17.5	16.0	16.0	13.5
4	1.5	1.0	4.5	3.5	10.0	7.5	14.5	12.5	18.0	14.5	17.0	13.0
5	1.5	.5	5.0	3.5	9.5	8.0	15.0	13.0	18.5	16.0	16.5	13.5
6	1.5	.5	4.5	3.5	9.5	8.0	15.5	13.5	18.5	15.5	17.0	14.0
7	2.0	1.0	4.5	3.5	10.5	8.0	15.5	14.0	19.0	15.5	16.0	14.5
8	1.5	1.0	6.0	4.0	12.5	8.5	15.5	14.0	18.5	16.0	16.0	14.5
9	1.5	1.0	4.0	3.5	12.5	9.5	16.0	14.0	18.5	16.0	16.5	14.0
10	1.5	.5	4.5	4.0	13.0	9.5	15.5	14.0	19.0	16.0	15.0	14.5
11	2.0	1.0	4.5	4.0	12.0	10.5	16.0	14.0	19.0	16.0	15.0	14.0
12	2.0	1.0	5.0	4.0	11.0	10.0	15.5	14.0	18.5	16.0	15.5	13.5
13	2.0	1.0	6.5	4.5	10.0	9.5	16.0	14.0	19.0	15.5	15.5	13.5
14	2.0	1.0	6.5	4.5	10.0	9.5	15.0	14.0	18.0	16.0	16.0	14.0
15	2.0	1.0	6.0	5.0	10.0	9.0	15.5	12.5	16.5	15.5	16.5	13.5
16	2.5	1.0	5.5	5.0	12.5	9.0	17.0	14.0	18.0	15.5	16.0	13.5
17	2.5	1.0	6.0	5.0	14.0	10.5	17.5	15.5	18.0	15.5	16.5	13.5
18	2.5	1.0	8.5	5.0	12.5	10.5	16.0	14.0	17.0	15.0	14.5	13.5
19	2.5	1.0	8.5	5.5	13.5	11.5	16.5	13.5	16.5	15.0	14.0	13.0
20	2.5	1.5	10.0	7.0	14.0	11.0	17.5	15.0	18.5	14.5	13.5	13.0
21	2.5	1.5	10.0	7.0	14.5	12.0	18.5	15.0	19.0	15.0	13.5	12.0
22	2.0	1.5	9.5	7.0	14.5	13.0	19.5	17.0	16.5	15.5	14.5	12.0
23	2.0	2.0	8.0	6.0	13.0	11.0	19.5	16.5	18.5	15.0	15.0	12.5
24	2.0	2.0	6.0	5.0	13.0	11.0	19.0	17.5	18.5	15.5	14.0	12.5
25	2.5	2.0	5.5	5.0	14.0	10.0	18.5	16.5	18.5	15.5	14.5	12.0
26	2.5	2.0	6.0	5.0	13.5	12.0	19.0	16.5	18.5	15.5	15.0	12.5
27	3.0	2.5	6.5	5.5	13.5	11.0	19.5	16.0	17.5	15.5	16.0	12.5
28	3.0	2.5	7.5	5.5	13.5	10.0	19.0	15.5	16.0	14.5	15.0	12.5
29	3.0	3.0	7.5	6.5	14.5	12.5	17.5	15.0	16.0	13.5	15.0	12.5
30	3.5	3.0	7.5	6.0	13.5	13.0	19.0	16.5	16.0	14.0	15.5	12.5
31	---	---	8.5	6.0	---	---	18.0	17.0	16.5	14.0	---	---
MONTH	3.5	.5	10.0	3.0	14.5	7.0	19.5	11.5	19.0	13.5	17.5	12.0
YEAR	19.5	.5										

13293900 REDFISH LAKE CREEK BELOW REDFISH LAKE, NEAR STANELY, ID

LOCATION.--Lat 44°09'20", long 114°54'40", in NE¼SW¼NW¼ sec.35, T.10 N., R.13 E., Custer County, Hydrologic Unit 17060201, Sawtooth National Recreation Area, on right bank 150 ft downstream from Redfish Lake road crossing.
PERIOD OF RECORD.--Water years 1973, 1975, 1977 to current year.
PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: December 1978 to September 1980 (discontinued).
INSTRUMENTATION.--Temperature recorder since Dec. 6, 1978.
REMARKS.--Miscellaneous chemical data published for water years 1973, 1975, 1977.
EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 19.5°C July 22-24, 27-28; minimum, 0.0°C several days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
OCT 02...	1500	28	31	--	19.0	15.0	--	--	--	--
JAN 15...	1345	56	35	8.0	<-5.0	1.0	.40	10.6	12	0
JUL 13...	1915	285	28	7.8	18.0	16.0	.50	7.7	11	0
SEP 15...	1146	61	67	--	12.5	14.0	--	--	--	--

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)
OCT 02...	--	--	--	--	--	--	--	--	--	--
JAN 15...	4.2	.4	1.6	22	.2	.3	22	0	18	.4
JUL 13...	3.6	.4	1.4	22	.2	.3	14	--	11	.4
SEP 15...	--	--	--	--	--	--	--	--	--	--

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)
OCT 02...	--	--	--	--	--	--	--	--	--
JAN 15...	2.0	.4	.8	.04	.000	.16	.16	.20	.89
JUL 13...	2.0	2.6	.7	.00	.090	.50	.59	.59	2.6
SEP 15...	--	--	--	--	--	--	--	--	--

DATE	PHOS-PHORUS, ORTHOPH OSPHATE DISSOL. (MG/L AS P)	PHOS-PHORUS, ORTHOPH OSPHATE DISSOL. (MG/L AS PO4)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
OCT 02...	--	--	--	--	--	--	--	--	--
JAN 15...	.030	.09	0	0	--	3	5	.0	30
JUL 13...	.000	.00	0	1	4	5	14	.1	40
SEP 15...	--	--	--	--	--	--	--	--	--

13293900 REDFISH LAKE CREEK BELOW REDFISH LAKE, NEAR STANLEY, ID--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	16.5	11.5	8.5	6.5	3.5	2.0	2.0	1.0	1.5	.5	3.0	.0
2	16.0	12.0	8.0	5.0	3.0	2.0	2.0	1.0	2.0	1.0	2.5	1.0
3	15.5	10.5	8.5	6.5	4.0	3.0	2.5	1.0	2.0	1.0	3.0	1.0
4	15.5	10.5	8.0	7.0	3.0	2.5	2.5	1.5	2.0	.0	3.0	1.0
5	15.5	11.0	8.5	7.0	4.0	2.5	2.0	.5	1.5	.0	2.5	1.0
6	15.5	11.0	8.0	6.0	4.0	3.0	1.5	.0	2.0	.5	2.5	.0
7	16.0	11.5	8.0	5.5	4.5	3.0	1.5	.0	2.5	.5	3.0	.0
8	15.5	11.0	7.5	5.5	4.5	3.0	1.5	.5	2.0	.0	2.5	.5
9	15.0	10.5	7.0	4.5	4.0	3.0	2.0	.5	1.5	.0	3.5	.0
10	15.0	10.5	7.5	5.5	3.5	1.0	1.0	.0	1.5	.0	4.0	.5
11	15.0	10.5	7.0	4.5	2.5	1.0	1.5	.0	1.5	.0	2.5	.0
12	15.5	11.0	6.5	4.0	3.0	1.5	1.5	.5	2.0	.0	3.0	.0
13	14.5	11.0	6.0	4.5	3.5	1.0	2.0	1.0	2.0	.0	2.5	.0
14	14.0	11.0	6.5	4.0	3.5	2.0	2.0	1.5	2.0	.5	3.0	.5
15	12.5	11.0	6.0	3.5	4.5	2.5	2.0	1.0	2.5	.5	2.5	.0
16	13.0	11.0	6.0	4.0	3.5	2.5	2.0	1.0	2.5	.5	3.0	.0
17	12.0	10.0	5.5	5.0	4.0	2.0	2.0	1.0	2.0	1.0	3.5	.0
18	11.0	9.5	5.0	3.0	3.5	1.5	2.0	.5	2.0	.5	3.0	.5
19	10.5	9.0	5.5	3.5	3.5	1.5	1.5	.0	2.5	1.0	3.5	.0
20	10.0	8.5	3.5	2.0	3.5	2.5	1.5	.0	2.5	.5	3.5	.0
21	10.5	8.5	3.5	1.5	3.0	2.0	2.0	.5	2.0	.5	3.5	.0
22	10.0	9.0	3.5	2.0	3.5	1.5	1.5	.5	2.0	.5	4.0	.5
23	10.5	9.0	4.0	2.5	3.0	1.0	2.0	.5	2.0	.0	3.5	.0
24	11.0	9.5	3.0	2.5	2.0	1.0	2.0	.5	2.0	.0	4.0	.0
25	11.0	9.0	3.5	2.0	2.5	1.0	1.5	.5	3.0	1.0	4.0	.0
26	10.5	8.5	3.5	2.0	3.0	1.0	1.5	.0	2.5	1.0	2.5	.0
27	10.0	7.5	3.0	1.0	2.5	1.0	1.0	.0	3.0	.5	2.5	.0
28	10.0	8.0	2.5	1.0	2.5	1.0	.0	.0	2.0	.5	4.0	.0
29	9.0	7.5	2.5	1.0	2.5	1.0	.5	.0	3.5	.5	4.0	.0
30	8.5	6.0	3.0	1.5	2.5	.5	.5	.0	---	---	2.0	.0
31	9.0	7.0	---	---	2.5	1.0	1.0	.0	---	---	4.0	.0
MONTH	16.5	6.0	8.5	1.0	4.5	.5	2.5	.0	3.5	.0	4.0	.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	4.0	.5	5.0	2.5	9.5	7.0	13.5	12.0	19.0	16.0	17.0	12.5
2	4.0	.5	4.5	3.0	10.0	7.5	13.0	11.5	19.5	15.5	14.0	13.0
3	3.5	.5	5.0	3.0	9.5	7.0	13.0	11.0	18.0	15.5	16.5	12.5
4	3.0	.5	5.5	3.0	10.0	7.5	14.5	12.0	18.0	14.0	17.0	12.0
5	2.5	.0	6.0	3.5	9.5	7.5	15.0	12.5	19.0	15.0	16.5	12.5
6	2.0	.0	5.5	3.5	9.5	7.5	15.5	13.0	19.0	14.5	17.0	13.0
7	4.5	.5	5.5	3.5	10.5	7.5	15.5	13.5	19.0	14.5	16.0	14.0
8	3.0	.5	6.5	3.5	13.0	8.0	15.5	13.5	19.0	15.0	16.5	13.5
9	2.0	.5	4.5	3.5	13.0	9.0	16.0	13.5	18.5	15.0	17.0	13.0
10	3.0	.0	4.5	3.5	13.0	9.5	15.5	13.5	19.0	15.0	15.0	14.0
11	5.0	.5	5.5	4.0	12.0	10.0	16.0	13.0	19.5	15.0	15.5	13.0
12	5.0	.0	6.0	4.0	10.5	9.5	16.0	13.5	19.0	15.0	16.0	12.5
13	5.5	.5	6.5	4.5	10.5	9.0	16.0	13.5	19.0	15.0	16.0	13.0
14	4.5	.5	7.0	4.5	10.0	9.0	14.5	13.5	19.0	15.5	16.5	13.0
15	5.5	.5	6.0	5.0	10.5	8.5	15.5	12.0	16.5	15.0	16.5	12.5
16	5.5	.0	5.5	5.0	13.0	8.5	17.0	13.5	18.0	15.0	16.0	12.5
17	6.0	.5	6.5	4.5	14.0	10.0	17.5	15.0	18.5	14.5	16.0	12.5
18	6.0	1.0	8.5	4.5	12.0	10.0	16.0	14.0	17.0	14.5	14.5	13.0
19	6.0	1.0	9.0	5.5	13.5	11.0	16.5	13.0	16.5	14.0	13.5	12.0
20	6.0	1.0	10.5	6.5	14.0	11.0	17.5	14.0	18.5	13.5	13.0	12.0
21	5.5	1.0	10.5	6.5	15.0	11.5	19.0	14.5	18.5	14.0	13.5	11.0
22	4.0	1.5	10.0	7.5	14.5	12.5	19.5	16.5	17.0	15.0	14.0	10.5
23	4.0	1.5	7.5	6.0	12.5	11.0	19.5	16.0	18.5	14.5	14.5	12.0
24	3.0	2.0	6.0	5.0	13.0	10.5	19.5	17.0	18.5	14.0	14.0	11.5
25	4.5	2.0	5.5	5.0	14.0	11.5	18.5	15.5	18.0	14.5	14.5	11.0
26	5.0	2.0	6.0	5.0	13.5	12.0	19.0	16.0	18.5	14.0	14.5	11.0
27	5.0	2.0	6.5	5.5	13.5	11.0	19.5	15.5	17.5	14.5	15.5	11.5
28	5.0	2.5	7.5	5.5	13.5	9.5	19.5	15.5	16.0	13.0	14.5	11.5
29	4.0	2.5	7.5	6.0	14.5	12.0	17.0	14.5	15.5	12.5	15.0	11.0
30	4.5	2.5	7.5	6.0	13.5	12.5	19.0	16.0	15.5	13.0	15.0	11.5
31	---	---	8.5	6.0	---	---	17.5	16.0	16.5	12.5	---	---
MONTH	6.0	.0	10.5	2.5	15.0	7.0	19.5	11.0	19.5	12.5	17.0	10.5
YEAR	19.5	.0										

13296000 YANKEE FORK SALMON RIVER NEAR CLAYTON, ID

LOCATION.--Lat 44°17'15", long 114°43'11", in NE¼SW¼ sec.17, T.11 N., R.15 E., Custer County, Hydrologic Unit 17060201, Challis National Forest, at Sunbeam-Custer bridge, 1.8 mi (2.9 km) north of Sunbeam, 1.9 mi (3.1 km) upstream from mouth, and 12 mi northeast of Stanley. Temperature recorder is on left bank 3.1 mi (5.0 km) upstream from mouth and 17 mi (27 km) west of Clayton.

DRAINAGE AREA.--195 mi² (505 km²), approximately.

PERIOD OF RECORD.--Water years 1977 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: July 1978 to current year (discontinued).

INSTRUMENTATION.--Temperature recorder since July 13, 1978.

REMARKS.--Partial temperature record Nov. 2, 8-9, 12-16, 19-22, and Feb. 24; and no record Sep. 2-15 due to equipment malfunction. Miscellaneous chemical data published for water year 1977.

EXTREMES FOR PERIOD OF RECORD.--

WATER TEMPERATURES: Maximum, 17.5°C July 31, Aug. 1, 2, 5, 7, 10, 1979; minimum, 0.0°C Nov. 15, 1978.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 16.0°C July 21, 23-28, 30, Aug. 2, 11, 13; minimum, 0.0°C on many days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS (MG/L AS CACO3)
JAN										
15...	1030	39	72	7.2	<-5.0	.0	.50	11.8	101	32
JUL										
13...	1445	245	57	8.1	17.0	13.0	2.0	7.9	--	22

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)
JAN										
15...	0	11	1.1	4.3	22	.3	.6	41	0	34
JUL										
13...	0	7.4	.9	3.6	25	.3	.6	39	--	32

DATE	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)
JAN										
15...	4.1	5.0	.2	.2	.11	.000	.31	.31	.42	1.9
JUL										
13...	.5	1.3	.4	.3	.00	.010	.43	.44	.44	1.9

DATE	PHOS-PHORUS, ORTHOPH OSPHATE DISSOL. (MG/L AS P)	PHOS-PHORUS, ORTHOPH OSPHATE DISSOL. (MG/L AS PO4)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
JAN									
15...	.050	.15	1	0	--	5	1	.0	20
JUL									
13...	.000	.00	1	0	2	6	9	.0	20

13296000 YANKEE FORK SALMON RIVER NEAR CLAYTON, ID--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	13.5	8.0	6.5	3.0	1.0	.5	.5	.5	.0	.0	---	---
2	13.0	8.5	6.0	---	1.0	.5	.5	.5	.0	.0	---	---
3	13.0	7.5	5.0	3.5	1.5	1.0	.5	.0	.0	.0	---	---
4	13.0	7.5	5.0	3.5	1.5	.5	1.0	.5	2.5	.0	1.5	---
5	13.0	7.5	5.0	3.5	1.5	.5	.5	.0	.5	.0	1.0	.0
6	13.0	7.5	6.5	2.5	1.5	1.0	.0	.0	.5	.0	1.0	.0
7	13.5	7.5	6.0	2.5	2.0	.5	.0	.0	.5	.0	.5	.0
8	13.0	7.5	6.0	---	2.0	1.0	.0	.0	.5	.0	1.0	.0
9	13.0	7.5	5.5	---	1.5	.5	.0	.0	.5	.0	2.0	.0
10	12.5	7.0	5.5	2.0	1.5	.5	.0	.0	.5	.0	2.0	.0
11	12.5	7.0	5.0	1.5	.5	.5	.0	.0	.5	.0	1.0	.0
12	12.5	7.0	5.0	---	.5	.5	.0	.0	.5	.0	1.5	.0
13	12.0	7.0	3.5	---	.5	.5	.0	.0	.5	.5	1.0	.0
14	11.5	7.5	3.5	---	1.0	.5	.0	.0	.5	.0	1.5	.0
15	9.0	7.5	3.5	---	1.0	.5	.5	.0	.5	.0	1.5	.0
16	11.0	7.5	3.0	---	1.0	.5	.5	.0	.5	.0	1.0	.0
17	9.0	7.0	2.5	1.5	1.0	.5	.5	.0	.5	.0	1.5	.0
18	8.5	7.0	2.5	1.0	.5	.5	.5	.0	.5	.0	1.5	.0
19	8.0	6.0	3.0	.5	.5	.5	.0	.0	1.0	.0	1.5	.0
20	7.5	5.5	---	---	1.0	.5	.0	.0	1.0	.0	1.5	.0
21	7.0	5.5	---	---	.5	.5	.5	.0	.5	.0	1.5	.0
22	7.5	5.0	---	---	1.0	.5	.0	.0	1.0	.0	2.0	.0
23	7.0	5.5	1.5	.5	.5	.5	1.0	.0	1.0	.0	2.0	.0
24	8.0	5.5	1.5	.5	.5	.0	.5	.0	3.5	---	1.5	.0
25	7.5	5.0	1.5	.5	1.0	.5	.5	.0	1.5	.0	2.0	.0
26	7.5	5.0	1.5	.5	1.0	.0	.0	.0	1.0	.0	1.0	.0
27	7.0	4.0	1.5	.5	.5	.5	.0	.0	2.0	.0	1.0	.0
28	6.5	4.5	.5	.5	.5	.5	.0	.0	1.0	.0	2.0	.0
29	6.0	4.0	.5	.5	.5	.5	.0	.0	2.0	.0	2.0	.0
30	6.5	3.5	1.0	.5	.5	.5	.0	.0	---	---	1.0	.0
31	6.5	3.5	---	---	.5	.5	.0	.0	---	---	2.5	.0
MONTH	13.5	3.5	6.5	.5	2.0	.0	1.0	.0	3.5	.0	2.5	.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	2.5	.0	7.5	2.5	7.0	3.5	10.0	6.5	15.5	11.0	13.5	8.0
2	2.0	.0	7.0	3.0	7.0	4.0	10.0	6.5	16.0	10.5	---	---
3	3.0	.0	6.0	3.0	7.0	3.0	11.5	7.5	15.5	11.0	---	---
4	2.0	.5	7.0	2.5	7.5	3.5	12.5	7.0	15.0	9.5	---	---
5	2.5	.0	7.5	2.5	7.0	3.5	13.0	6.5	15.5	9.5	---	---
6	1.5	.0	6.0	3.0	8.0	3.5	13.0	6.5	15.5	9.5	---	---
7	2.5	.0	6.5	3.5	7.0	3.5	13.0	7.5	15.5	9.5	---	---
8	2.0	.0	7.0	3.5	10.5	3.5	11.5	8.0	15.0	10.0	---	---
9	2.0	.5	5.0	3.0	9.5	4.5	14.0	7.5	15.5	9.5	---	---
10	2.0	.0	5.0	3.0	9.0	4.5	14.0	8.0	15.5	10.0	---	---
11	3.5	.0	6.0	3.0	9.0	4.5	14.0	7.0	16.0	10.0	---	---
12	4.5	.0	7.5	2.5	8.5	4.0	14.0	8.0	15.5	10.0	---	---
13	4.5	.5	6.0	3.0	8.5	3.5	14.0	8.5	16.0	10.0	---	---
14	4.0	.5	6.0	3.0	7.0	4.5	10.5	7.5	15.5	10.0	---	---
15	4.0	.5	5.5	3.0	8.0	4.5	13.5	7.0	13.5	11.0	---	---
16	4.0	.5	5.0	3.0	10.5	4.0	14.5	7.5	15.5	11.0	13.0	8.5
17	4.0	.5	8.0	3.5	11.5	4.5	14.5	9.5	15.5	10.5	13.0	8.0
18	4.0	.5	8.5	3.5	9.5	5.0	13.0	8.0	14.5	11.0	11.0	8.5
19	4.5	.5	9.0	3.5	10.0	5.0	14.5	8.5	13.0	9.5	10.0	8.0
20	5.5	1.0	9.5	3.5	9.5	5.0	15.0	9.0	15.0	9.0	9.5	8.0
21	5.5	1.0	8.5	3.5	11.0	5.0	16.0	9.5	15.0	9.5	10.5	7.5
22	5.5	1.5	7.0	4.0	10.5	5.0	15.5	10.0	12.5	10.5	10.5	8.0
23	5.0	2.0	5.0	3.5	9.0	6.0	16.0	10.5	15.0	10.0	11.0	7.5
24	4.0	2.0	6.0	3.5	10.0	4.0	16.0	10.5	15.0	9.5	10.5	6.5
25	6.5	2.5	4.0	3.0	11.5	5.0	16.0	10.0	14.5	9.5	11.0	6.0
26	6.5	2.0	5.0	3.0	10.5	6.0	16.0	10.0	14.5	9.5	10.5	6.5
27	7.0	2.0	5.0	3.0	11.0	5.0	16.0	10.0	14.5	10.0	11.5	6.5
28	7.0	2.0	7.5	2.5	11.5	4.5	16.0	10.5	11.5	9.0	11.5	7.0
29	5.0	2.5	6.5	3.0	12.0	5.5	15.0	12.0	12.0	8.5	11.5	6.5
30	6.5	2.5	8.5	4.0	10.5	7.0	16.0	11.0	12.5	9.0	11.5	6.5
31	---	---	8.0	4.0	---	---	14.0	11.0	12.0	8.5	---	---
MONTH	7.0	.0	9.5	2.5	12.0	3.0	16.0	6.5	16.0	8.5	13.5	6.0
YEAR	16.0	.0										

13296500 SALMON RIVER BELOW YANKEE FORK, NEAR CLAYTON, ID

LOCATION.--Lat 44°16'06", long 114°43'55", in sec.20, T.11 N., R.15 E. (unsurveyed), Custer County, Challis National Forest, on left bank 700 ft (213 m) downstream from Yankee Fork, 18 mi (29 km) upstream from Clayton, and at mile 366.9 (590.3 km).

DRAINAGE AREA.--802 mi² (2,077 km²). Mean altitude, 7,790 ft (2,374 m).

PERIOD OF RECORD.--October 1921 to current year. Monthly discharge only for some periods, published in WSP 1317. Operated as high-flow station only 1972-76 (discharge for period October 1976 to April 1977 was estimated).

REVISED RECORDS.--WSP 1347: 1931. WSP 1567: Drainage area. WDR ID-77-1: 1974-76 (M).

GAGE.--Water-stage recorder. Altitude of gage is 5,900 ft (1,798 m), by barometer. Oct. 3, 1926, to Nov. 5, 1934, at site 200 ft (61 m) downstream at approximately present datum. Prior to Oct. 3, 1926, nonrecording gage at site 200 ft (61 m) downstream at datum approximately 1.5 ft (0.5 m) higher.

REMARKS.--Records good. Diversions above station for irrigation of about 4,400 acres (1,780 hm²), 1966 determination.

AVERAGE DISCHARGE.--55 years, 998 ft³/s (28.3 m³/s), 16.90 in/yr (429 mm/yr), 723,100 acre-ft/yr (892 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,400 ft³/s (295 m³/s) June 17, 1974, gage height, 11.86 ft (3.615 m); minimum, 160 ft³/s (4.53 m³/s), estimated, Nov. 25-30, 1929.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 2,350 ft³/s (66.6 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 23	1615	*4810	136	7.81	2.380	June 22	1245	4060	115	7.06	2.152

Minimum discharge, 258 ft³/s (7.31 m³/s) Dec. 11, gage height, 1.51 ft (0.460 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

1.5	255	4.0	1,450
2.0	426	6.0	3,020
3.0	870	8.0	5,020

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	364	418	358	361	404	361	352	2550	2280	2690	840	470
2	368	372	364	351	390	365	340	2650	2330	2650	820	490
3	368	426	383	354	372	358	342	3100	2190	2810	780	510
4	368	421	383	354	354	358	347	3300	2080	2790	740	495
5	368	417	378	368	340	358	356	3450	2010	2640	700	480
6	369	405	374	327	347	334	366	3600	1980	2480	690	475
7	366	387	370	334	347	354	357	3850	1870	2320	660	470
8	359	369	370	358	327	351	353	4150	1820	2190	630	470
9	359	356	371	376	320	351	364	4100	1930	2070	610	498
10	357	366	376	305	327	354	363	3750	2270	1970	580	539
11	361	374	297	340	334	340	358	3500	2640	1840	560	699
12	356	339	322	393	330	347	361	3000	2950	1730	540	652
13	356	343	330	455	327	361	383	2740	2980	1610	520	760
14	354	335	348	470	340	368	430	2630	3100	1540	510	694
15	377	326	360	463	337	347	481	2550	2940	1490	520	625
16	425	336	360	437	337	337	528	2530	2660	1380	530	595
17	397	386	345	440	340	376	627	2390	2700	1310	530	578
18	400	374	330	340	361	361	818	2400	3010	1250	530	579
19	542	369	324	340	379	354	980	2600	3460	1200	530	640
20	527	303	358	350	368	368	1200	2940	3710	1140	530	617
21	466	292	351	370	368	358	1350	3470	3880	1090	500	700
22	446	322	354	390	368	354	1550	4100	4020	1060	500	623
23	444	366	320	404	340	347	1600	4700	3970	1030	480	595
24	452	362	337	383	368	340	1800	4490	3650	1000	460	575
25	444	370	354	350	361	340	1900	4090	3270	960	470	565
26	471	375	354	310	361	372	2000	3620	3060	910	460	555
27	450	341	317	270	365	358	2150	3200	2970	890	470	546
28	460	314	295	265	365	331	2300	2840	2720	870	470	537
29	450	308	285	270	340	354	2500	2570	2560	900	470	526
30	411	321	320	280	---	350	2650	2410	2640	890	470	520
31	429	---	354	330	---	332	---	2310	---	850	470	---
TOTAL	12664	10793	10754	11198	10217	10939	29506	99580	83630	49550	17570	17078
MEAN	409	360	347	361	352	353	984	3212	2788	1598	567	569
MAX	542	426	383	470	404	376	2650	4700	4020	2810	840	760
MIN	354	292	285	265	320	331	340	2310	1820	850	460	470
CFSM	.51	.45	.43	.45	.44	.44	1.23	4.01	3.48	1.99	.71	.71
IN.	.59	.50	.50	.52	.47	.51	1.37	4.62	3.88	2.30	.81	.79
AC-FT	25120	21410	21330	22210	20270	21700	58530	197500	165900	98280	34850	33870

CAL YR 1979 TOTAL 248960 MEAN 682 MAX 4600 MIN 265 CFSM .85 IN 11.55 AC-FT 493800
WTR YR 1980 TOTAL 363479 MEAN 993 MAX 4700 MIN 265 CFSM 1.24 IN 16.86 AC-FT 721000

NOTE.--No gage-height record Dec. 13-18, Apr. 19 to May 13, July 23 to Sept. 9.

13297330 THOMPSON CREEK NEAR CLAYTON, ID

LOCATION.--Lat 44°16'01", long 114°30'48", in NE¼NE¼SE¼ sec.24, T.11 N., R.16 E., Custer County, Hydrologic Unit 17060201, on right bank 1.2 mi (1.9 km) upstream from mouth, 2.2 mi (3.5 km) below Pat Hughes Creek, and 5.7 mi (9.2 km) west of Clayton.

DRAINAGE AREA.--29.1 mi² (75.4 km²).

PERIOD OF RECORD.--November 1972 to current year.

GAGE.--Water-stage recorder. Datum of gage is about 5,700 ft (1,737 m), from topographic map.

REMARKS.--Records good.

AVERAGE DISCHARGE.--8 years, 17.8 ft³/s (0.504 m³/s), 8.31 in/yr (211 mm/yr), 12,900 acre-ft/yr (15.9 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 332 ft³/s (9.40 m³/s) June 16, 1974, gage height, 5.61 ft (1.710 m), from floodmark; minimum, 1.0 ft³/s (0.028 m³/s) Mar. 16, 1980, gage height, 3.73 ft (1.137 m).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 80 ft³/s (2.27 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 7	2400	*140	3.96	5.05	1.539	May 23	0545	117	3.31	4.94	1.506

Minimum discharge, 1.0 ft³/s (0.028 m³/s) Mar. 16, gage height, 3.73 ft (1.137 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Dec. 29, Jan. 27, 28)

3.7	1.0	4.4	34
3.8	2.5	4.6	58
3.9	4.8	4.8	92
4.0	7.9	5.0	136
4.2	17		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	3.1	2.5	2.6	2.5	2.7	4.6	94	56	36	7.6	4.3
2	2.6	2.5	2.5	2.3	2.4	3.4	4.2	111	56	35	7.2	4.3
3	2.6	3.1	2.6	2.1	2.1	3.6	4.3	125	54	44	6.9	5.4
4	2.6	3.1	2.9	2.1	2.1	3.6	4.6	126	54	37	6.9	4.5
5	2.6	3.1	2.9	2.1	1.9	3.6	4.3	126	51	32	6.6	4.1
6	2.6	3.1	2.9	2.0	2.1	3.6	4.3	128	49	30	6.3	3.8
7	2.5	3.1	2.9	2.3	2.1	2.7	4.2	130	46	27	6.0	3.8
8	2.5	2.6	2.9	2.5	1.8	3.3	4.1	134	44	26	6.0	3.8
9	2.6	2.6	2.9	2.5	1.9	3.3	4.3	125	46	23	5.7	4.1
10	2.6	2.6	3.1	2.5	2.1	3.3	4.3	110	53	21	5.7	4.1
11	2.5	2.6	2.5	2.0	2.1	3.3	4.2	95	57	19	5.4	6.3
12	2.5	1.8	2.9	2.9	2.1	3.3	4.1	80	60	17	5.1	5.7
13	2.5	2.1	3.3	3.1	2.3	3.3	4.9	71	60	16	5.1	6.3
14	2.5	2.1	3.3	3.1	2.3	3.6	7.2	63	57	16	5.1	6.3
15	2.5	2.0	3.3	3.1	2.3	3.6	9.7	58	51	16	5.4	5.4
16	2.5	2.3	3.3	2.9	2.3	2.3	12	57	49	14	6.6	4.8
17	2.5	3.1	3.3	2.6	2.3	2.4	18	53	47	14	5.7	4.5
18	2.6	2.9	3.1	2.6	2.3	4.0	27	54	54	13	5.7	4.3
19	2.9	2.9	3.1	1.8	2.3	3.8	37	61	58	12	6.0	5.4
20	3.3	1.8	3.1	2.8	2.3	3.8	53	76	61	11	5.4	5.1
21	3.3	1.4	3.0	3.0	2.3	4.1	67	94	64	11	5.1	5.7
22	3.3	1.8	2.9	2.6	2.3	4.1	70	108	67	10	5.1	5.4
23	3.1	2.3	2.9	2.7	2.3	4.1	72	115	66	9.7	5.1	5.1
24	3.1	2.6	2.9	2.6	2.0	3.8	81	100	57	9.3	4.8	4.8
25	3.3	2.6	2.9	2.6	2.5	3.8	79	86	50	8.9	4.5	4.5
26	3.6	2.5	2.8	2.3	2.5	3.1	82	74	46	8.6	4.5	4.5
27	3.6	2.0	2.4	2.2	2.5	4.5	88	64	44	8.6	4.5	4.5
28	3.6	1.8	2.3	2.0	2.5	3.7	94	58	40	8.2	4.3	4.3
29	3.6	2.3	2.1	1.8	2.5	4.4	108	56	37	7.9	4.5	4.1
30	3.3	2.3	2.3	2.2	---	4.3	101	53	37	7.9	4.5	4.1
31	3.1	---	2.5	2.4	---	3.8	---	56	---	7.9	4.3	---
TOTAL	89.0	74.1	88.3	76.3	65.0	110.2	1062.3	2741	1571	557.0	171.6	143.3
MEAN	2.87	2.47	2.85	2.46	2.24	3.55	35.4	88.4	52.4	18.0	5.54	4.78
MAX	3.6	3.1	3.3	3.1	2.5	4.5	108	134	67	44	7.6	6.3
MIN	2.5	1.4	2.1	1.8	1.8	2.3	4.1	53	37	7.9	4.3	3.8
CFSM	.10	.09	.10	.09	.08	.12	1.22	3.04	1.80	.62	.19	.16
IN.	.11	.09	.11	.10	.08	.14	1.36	3.50	2.01	.71	.22	.18
AC-FT	177	147	175	151	129	219	2110	5440	3120	1100	340	284

CAL YR 1979 TOTAL 3753.5 MEAN 10.3 MAX 95 MIN 1.4 CFSM .35 IN 4.80 AC-FT 7450
WTR YR 1980 TOTAL 6749.1 MEAN 18.4 MAX 134 MIN 1.4 CFSM .63 IN 8.63 AC-FT 13390

13297350 BRUNO CREEK NEAR CLAYTON, ID

LOCATION.--Lat 44°17'56", long 114°26'50", in SW¼NE¼ sec.8, T.11 N., R.17 E., Custer County, Hydrologic Unit 17060201, Bureau of Land Management lands, on left bank 0.2 mi (0.3 km) upstream from mouth, and 4.8 mi (7.7 km) northwest of Clayton.

DRAINAGE AREA.--6.29 mi² (16.29 km²).

PERIOD OF RECORD.--April 1971 to current year.

REVISED RECORDS.--WDR ID-76-1: 1974-75(P).

GAGE.--Water-stage recorder and cipolletti weir since 1978. Altitude of gage is 5,840 ft (1,780 m), from topographic map.

REMARKS.--Records good. Flow affected at times by return flow from ground-water pumping tests about 2 mi (3.2 km) upstream.

AVERAGE DISCHARGE.--9 years, 1.68 ft³/s (0.048 m³/s), 3.63 in/yr (92 mm/yr), 1,217 acre-ft/yr (1.50 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42 ft³/s (1.19 m³/s) May 31, 1972, gage height, 2.45 ft (0.747 m); minimum, 0.03 ft³/s (0.850 dm³/s) Sept. 13, 1977, gage height, 2.14 ft (0.652 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10.4 ft³/s (0.29 m³/s) May 6-8, gage height, 3.03 ft (0.924 m), no peak above base of 16 ft³/s (0.45 m³/s); minimum daily, 0.20 ft³/s (5.66 dm³/s) Dec. 13.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 28-30, Jan. 27-30)

2.17	0.20	2.50	2.7
2.20	.34	2.80	6.3
2.30	.96	3.10	10.8

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.25	.68	.46	.50	.50	.50	.56	8.3	5.6	2.0	.75	.50
2	.29	.64	.41	.45	.45	.50	.56	9.2	5.8	2.0	.75	.50
3	.29	.57	.64	.45	.45	.56	.56	9.5	5.6	2.4	.75	.50
4	.29	.53	.39	.45	.50	.56	.56	9.7	5.5	2.0	.75	.50
5	.29	.50	.33	.56	.45	.56	.56	9.7	5.5	1.9	.75	.50
6	.29	.50	.35	.50	.50	.56	.62	10	5.3	1.6	.69	.50
7	.29	.50	.33	.50	.50	.56	.56	10	5.0	1.5	.62	.45
8	.29	.46	.43	.50	.45	.56	.56	10	4.8	1.5	.62	.45
9	.29	.48	.60	.50	.50	.50	.56	9.8	4.6	1.5	.56	.45
10	.29	.53	1.1	.56	.50	.50	.62	9.3	4.9	1.4	.56	.50
11	.29	.87	.80	.56	.50	.56	.62	8.9	5.0	1.3	.56	.75
12	.29	.84	.28	.62	.50	.56	.62	8.3	5.1	1.3	.50	.62
13	.32	.72	.20	.69	.50	.56	.62	7.6	5.0	1.3	.50	.75
14	.41	.63	.22	.62	.50	.56	.69	7.0	4.9	1.3	.50	.69
15	.48	.56	.28	.96	.50	.56	.75	6.7	4.6	1.3	.62	.62
16	.47	.65	.28	2.0	.50	.56	.82	6.6	4.4	1.2	.69	.56
17	.36	.50	.24	2.1	.50	.56	.96	6.0	4.2	1.1	.56	.50
18	.31	.50	.24	2.1	.50	.56	1.1	6.2	4.0	1.1	.56	.50
19	.32	.48	.24	2.1	.50	.56	1.1	6.6	4.0	1.0	.56	.45
20	.34	.41	.24	2.0	.50	.56	2.0	7.4	3.8	1.0	.56	.45
21	.34	.34	.24	1.2	.50	.56	4.2	8.4	3.7	.96	.56	.56
22	.34	.30	.34	.50	.50	.56	4.8	9.2	3.4	.96	.50	.50
23	.34	.24	.34	.45	.50	.56	4.3	9.4	3.4	.96	.50	.45
24	.36	.24	.34	.45	.50	.56	5.9	8.9	3.3	.89	.50	.45
25	.42	.25	.34	.45	.50	.56	6.3	8.3	2.9	.89	.45	.75
26	.56	.29	.34	.45	.50	.56	6.9	7.9	2.7	.82	.50	.62
27	.71	.29	.39	.30	.50	.56	7.4	7.0	2.6	.75	.50	.56
28	.77	.24	.39	.28	.50	.56	7.9	6.3	2.4	.75	.45	.50
29	.72	.24	.45	.26	.50	.56	8.6	6.0	2.2	.75	.45	.50
30	.64	.29	.45	.31	---	.56	8.6	5.8	2.1	.75	.45	.82
31	.65	---	.45	.50	---	.56	---	5.8	---	.75	.45	---
TOTAL	12.30	14.27	12.13	23.87	14.30	17.12	79.90	249.8	126.3	38.93	17.72	16.45
MEAN	.40	.48	.39	.77	.49	.55	2.66	8.06	4.21	1.26	.57	.55
MAX	.77	.87	1.1	2.1	.50	.56	8.6	10	5.8	2.4	.75	.82
MIN	.25	.24	.20	.26	.45	.50	.56	5.8	2.1	.75	.45	.45
AC-FT	24	28	24	47	28	34	158	495	251	77	35	33

CAL YR 1979 TOTAL 275.60 MEAN .76 MAX 6.0 MIN .12 AC-FT 547
WTR YR 1980 TOTAL 623.09 MEAN 1.70 MAX 10 MIN .20 AC-FT 1240

13297355 SQUAW CREEK BELOW BRUNO CREEK, NEAR CLAYTON, ID

LOCATION.--Lat 44°17'26", long 114°28'14", in SW¼SW¼SW¼ sec.9, T.11 N., R.17 E., Custer County, Hydrologic Unit 17060201, on left bank 3 mi (5 km) upstream from mouth and 4.5 mi (7.2 km) northwest of Clayton.

DRAINAGE AREA.--79.0 mi² (205 km²).

PERIOD OF RECORD.--October 1972 to current year.

REVISED RECORDS.--WDR ID-76-1: 1975(P).

GAGE.--Water-stage recorder. Altitude of gage is 5,710 ft (1,740.40 m) from topographic map. Prior to June 12, 1974, at datum 2.46 ft (0.750 m) higher.

REMARKS.--Records good except those for winter period, which are fair.

AVERAGE DISCHARGE.--8 years, 34.5 ft³/s (0.977 m³/s), 5.93 in/yr (151 mm/yr), 25,000 acre-ft/yr (30.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 694 ft³/s (19.7 m³/s) June 16, 1974, gage height, 5.85 ft (1.783 m); minimum, 3.3 ft³/s (0.093 m³/s) Mar. 11, 1979, gage height, 2.49 ft (0.759 m).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 180 ft³/s (5.10 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 8	2030	*252	7.14	4.72	1.439
May 22	2045	246	6.97	4.70	1.433

Minimum daily discharge, 4.5 ft³/s (1.274 m³/s) Nov. 21.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 18 to July 4;
stage-discharge relation affected by ice Nov. 9-16, Nov. 20 to Dec. 3,
Dec. 10-15, 17-19, 23, Dec. 26 to Jan. 17, Jan. 21 to Feb. 3, Feb. 8-13,
21, 24, Mar. 1, 7, 8, 11-13, 16, 17, 19, 20, 23-26)

2.5	3.4	3.4	42
2.6	4.8	3.8	89
2.8	9.0	4.0	122
3.0	16	4.5	246
3.2	27		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.7	8.3	7.0	7.8	8.5	8.6	10	140	113	60	16	10
2	5.7	6.6	7.2	7.2	8.0	8.8	11	175	111	59	15	11
3	5.7	9.6	7.4	6.6	7.7	8.8	11	198	104	70	14	12
4	5.9	8.8	7.6	6.6	7.8	8.8	10	203	99	60	14	11
5	6.1	8.8	7.1	6.6	8.0	8.5	11	206	95	53	14	10
6	6.1	8.3	7.1	6.6	7.8	8.5	11	208	90	49	13	9.9
7	6.1	7.8	7.1	7.4	7.3	8.2	11	222	87	45	12	9.9
8	6.1	7.1	7.1	8.0	6.7	8.4	12	234	86	43	12	11
9	6.1	7.1	7.1	8.0	7.0	9.0	11	222	93	42	12	11
10	6.1	7.1	7.6	8.0	7.3	9.0	11	195	109	37	12	12
11	6.3	7.1	7.2	7.2	7.3	9.0	11	167	120	35	11	24
12	6.3	5.4	7.4	8.2	7.3	9.0	12	147	128	33	11	15
13	6.3	5.9	7.6	9.2	7.8	9.0	15	134	122	31	11	17
14	6.4	5.9	7.8	9.6	7.8	9.3	20	126	120	30	11	15
15	7.1	5.9	7.6	10	7.6	9.0	25	122	113	30	14	13
16	8.3	6.4	7.1	9.8	7.3	8.2	28	118	104	28	14	12
17	7.3	8.8	8.0	9.6	7.3	8.6	39	113	108	26	12	12
18	7.3	8.5	8.2	9.0	7.8	9.3	55	120	114	26	12	12
19	9.6	8.3	8.2	8.3	8.0	10	71	136	118	24	13	14
20	9.3	6.4	7.1	8.5	7.8	10	93	170	118	23	12	13
21	8.3	4.5	7.1	8.5	7.8	9.6	104	206	118	22	11	14
22	8.0	5.2	7.1	8.0	7.8	9.6	111	231	116	22	11	13
23	8.3	5.9	7.5	7.6	7.8	9.6	114	237	111	20	12	12
24	8.5	7.6	7.1	7.6	7.7	9.5	118	203	98	19	11	12
25	8.8	7.6	7.1	7.4	8.0	9.0	132	170	87	18	11	12
26	9.6	7.2	7.4	6.8	7.8	8.6	140	144	82	18	11	12
27	8.8	6.3	7.2	6.6	8.0	10	138	128	75	17	11	11
28	10	5.5	7.0	6.4	8.3	13	147	116	71	16	10	11
29	9.0	6.3	6.5	6.6	8.3	11	160	111	65	16	10	11
30	7.1	6.6	6.3	7.2	---	9.9	151	106	65	16	10	11
31	9.0	---	7.0	8.0	---	13	---	111	---	16	10	---
TOTAL	229.2	210.8	225.8	242.9	223.6	290.8	1793	5119	3040	1004	373	373.8
MEAN	7.39	7.03	7.28	7.84	7.71	9.38	59.8	165	101	32.4	12.0	12.5
MAX	10	9.6	8.2	10	8.5	13	160	237	128	70	16	24
MIN	5.7	4.5	6.3	6.4	6.7	8.2	10	106	65	16	10	9.9
CFSM	.09	.09	.09	.10	.10	.12	.76	2.09	1.28	.41	.15	.16
IN.	.11	.10	.11	.11	.11	.14	.84	2.41	1.43	.47	.18	.18
AC-FT	455	418	448	482	444	577	3560	10150	6030	1990	740	741

CAL YR 1979 TOTAL 7527.6 MEAN 20.6 MAX 206 MIN 4.5 CFSM .26 IN 3.54 AC-FT 14930
WTR YR 1980 TOTAL 13125.9 MEAN 35.9 MAX 237 MIN 4.5 CFSM .45 IN 6.18 AC-FT 26040

13297450 LITTLE BOULDER CREEK NEAR CLAYTON, ID

LOCATION.--Lat 44°05'57", long 114°26'56", in SW¼NE¼NW¼ sec.22, T.9 N., R.17 E., Custer County, Hydrologic Unit 17060201, on right bank 950 ft (290 m) upstream from mouth and 11 mi (17.7 km) south of Clayton.

DRAINAGE AREA.--18.4 mi^2 (47.7 km^2).

PERIOD OF RECORD.--June 1970 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,200 ft (1,890 m), from topographic map.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--10 years, 22.1 ft^3/s (0.626 m^3/s), 16.31 in/yr (414 mm/yr), 16,010 acre-ft/yr (19.7 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 570 ft^3/s (16.1 m^3/s) June 1, 1972, gage height, 5.84 ft (1.780 m); maximum gage height, 5.96 ft (1.817 m) Jan. 31, 1975 (ice jam); minimum discharge, 2.2 ft^3/s (62.3 dm^3/s) Nov. 8, 1977, gage height, 3.34 ft (1.018 m).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 100 ft^3/s (2.83 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 23	0815	134	3.79	5.02	1.530	July 4	0745	160	4.53	5.08	1.548
June 20	2215	*192	5.44	5.19	1.582						

Minimum, 2.4 ft^3/s (68.0 dm^3/s) Nov. 2, gage height, 3.38 ft (1.030 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 21-23, Dec. 8-13,
Jan. 5-8, 10-13, 16, 19, 20, Mar. 16-18)

3.5	3.2	4.5	35
3.6	3.9	4.7	60
3.7	4.7	4.9	96
3.9	7.3	5.1	146
4.1	12	5.3	210
4.3	19		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.6	5.5	4.8	4.5	4.5	4.1	4.0	25	35	134	33	9.7
2	5.5	4.4	4.8	4.5	4.5	4.1	4.1	27	34	124	31	9.7
3	5.5	6.5	5.1	4.5	4.4	4.1	4.1	32	32	140	29	10
4	5.4	6.0	5.1	4.5	4.3	4.1	4.1	38	30	146	26	9.4
5	5.4	5.9	5.0	4.5	4.3	4.1	4.1	44	30	129	23	9.2
6	5.2	5.6	5.1	4.1	4.3	4.1	4.1	49	28	112	21	9.0
7	5.2	5.2	5.1	4.2	4.2	4.1	4.1	53	27	98	19	9.0
8	5.2	5.0	4.9	4.9	4.1	4.1	4.2	50	28	96	19	9.9
9	5.2	4.6	4.8	5.1	4.1	4.1	4.2	48	34	92	18	9.7
10	5.1	5.1	4.8	5.2	4.1	4.1	4.2	42	49	94	17	11
11	5.1	4.7	3.4	4.7	4.1	4.1	4.4	36	68	90	16	12
12	5.1	4.4	4.1	5.2	4.1	4.1	4.5	31	79	82	16	13
13	5.1	4.7	4.6	6.0	4.1	4.0	4.6	28	70	73	15	16
14	5.1	4.4	4.6	8.0	4.1	4.1	4.9	26	60	62	15	15
15	5.5	4.3	4.5	9.0	4.1	4.2	4.9	25	54	56	16	14
16	5.7	5.0	4.5	10	4.1	3.9	4.9	25	52	50	16	13
17	5.6	5.6	4.5	11	4.1	4.0	5.6	25	63	48	15	12
18	5.7	4.9	4.5	9.7	4.1	4.2	6.7	25	96	50	15	12
19	6.8	4.7	4.5	8.0	4.1	4.3	8.0	30	148	48	14	13
20	6.7	3.9	4.5	5.9	4.2	4.2	10	38	169	46	13	12
21	6.5	4.1	4.5	5.6	4.1	4.2	12	56	157	46	13	12
22	6.4	4.5	4.5	5.2	4.1	4.2	13	90	137	48	13	12
23	6.4	5.1	4.5	5.0	4.1	4.1	13	119	134	49	12	11
24	6.5	4.8	4.5	4.8	4.1	4.1	14	92	119	50	12	11
25	6.5	4.9	4.5	4.7	4.1	4.1	17	67	96	48	12	10
26	6.7	5.0	4.5	4.6	4.1	4.2	17	56	112	45	12	9.9
27	6.0	5.0	4.5	4.6	4.1	4.1	19	49	102	42	12	9.2
28	6.2	4.8	4.5	4.5	4.1	4.0	23	43	86	39	11	8.6
29	6.0	4.7	4.5	4.5	4.1	3.8	29	40	84	38	10	8.2
30	5.0	4.7	4.5	4.5	---	3.8	28	37	114	38	10	7.8
31	6.0	---	4.5	4.5	---	3.9	---	35	---	36	10	---
TOTAL	177.9	148.0	142.7	176.0	120.8	126.6	284.7	1381	2327	2249	514	328.3
MEAN	5.74	4.93	4.60	5.68	4.17	4.08	9.49	44.5	77.6	72.5	16.6	10.9
MAX	6.8	6.5	5.1	11	4.5	4.3	29	119	169	146	33	16
MIN	5.0	3.9	3.4	4.1	4.1	3.8	4.0	25	27	36	10	7.8
CFSM	.31	.27	.25	.31	.23	.22	.52	2.42	4.22	3.94	.90	.59
IN.	.36	.30	.29	.36	.24	.26	.58	2.79	4.70	4.55	1.04	.66
AC-FT	353	294	283	349	240	251	565	2740	4620	4460	1020	651

CAL YR 1979 TOTAL 5942.2 MEAN 16.3 MAX 135 MIN 3.4 CFSM .89 IN 12.01 AC-FT 11790
WTR YR 1980 TOTAL 7976.0 MEAN 21.8 MAX 169 MIN 3.4 CFSM 1.19 IN 16.12 AC-FT 15820

13297597 HERD CREEK BELOW TRAIL GULCH NEAR CLAYTON, ID

LOCATION.--Lat 44°08'56", long 114°17'22", in SW¼SW¼SW¼ sec.36, T.10 N., R.18 E., Custer County, Hydrologic Unit 17060201, on left bank 0.8 mi (1.3 km) from mouth, and 9 mi (14 km) southeast of Clayton.

DRAINAGE AREA.--110 mi² (285 km²), approximately.

PERIOD OF RECORD.--October 1979 to September 1980.

GAGE.--Water-stage recorder. Altitude of gage is 5,790 ft (1,765 m), from topographic map.

REMARKS.--Records good except those for winter periods, which are fair. Small diversions for irrigation above station.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 285 ft³/s (8.07 m³/s) June 20, gage height, 3.84 ft (1.170 m); minimum, 8.5 ft³/s (0.241 m³/s) Feb. 9, Mar. 16, gage height, 2.56 ft (0.780 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 11 to Dec. 3, Dec. 11-19, Dec. 23 to Jan. 13, and Jan. 19 to Feb. 16)

2.6	10	3.0	52
2.7	15	3.3	114
2.8	24	3.8	270

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	17	13	16	15	12	12	53	152	159	47	27
2	20	15	14	16	16	13	12	57	154	153	45	25
3	20	18	15	16	16	13	12	61	149	166	44	25
4	20	18	17	16	16	13	12	61	149	158	44	24
5	18	17	17	16	15	12	13	67	143	143	44	23
6	18	17	16	13	15	12	13	74	143	132	42	22
7	17	17	15	14	15	12	12	78	140	124	41	22
8	18	16	15	15	13	12	12	84	135	117	40	24
9	18	17	15	15	13	12	13	89	143	111	39	23
10	18	15	15	15	13	13	13	87	160	105	37	25
11	18	16	12	14	14	12	13	82	191	99	37	30
12	19	16	14	16	14	12	13	78	203	94	36	27
13	18	16	15	16	14	12	13	76	200	87	36	32
14	18	16	15	15	15	13	15	76	200	84	35	31
15	19	15	15	14	15	13	16	78	194	81	36	26
16	20	16	15	19	15	12	17	80	178	75	36	24
17	19	17	16	18	13	13	18	78	184	72	35	25
18	19	16	15	14	13	14	22	76	204	69	34	24
19	22	16	15	13	12	14	25	78	225	67	35	25
20	20	13	15	14	12	14	34	91	259	63	34	24
21	19	13	15	17	12	13	42	110	266	60	31	26
22	19	13	15	15	12	13	43	143	256	58	30	25
23	20	14	14	17	12	13	42	194	252	56	30	24
24	19	13	14	16	12	12	43	210	228	54	29	24
25	19	14	14	15	12	12	45	200	209	53	28	23
26	19	14	14	15	12	12	47	181	201	50	30	23
27	18	13	14	14	12	14	47	166	186	47	28	22
28	20	12	15	14	12	13	52	157	174	46	27	21
29	19	12	15	15	12	12	61	149	166	46	27	21
30	16	12	16	15	---	12	59	149	168	48	27	20
31	18	---	16	15	---	13	---	146	---	48	26	---
TOTAL	585	454	461	473	392	392	791	3309	5612	2725	1090	737
MEAN	18.9	15.1	14.9	15.3	13.5	12.6	26.4	107	187	87.9	35.2	24.6
MAX	22	18	17	19	16	14	61	210	266	166	47	32
MIN	16	12	12	13	12	12	12	53	135	46	26	20
AC-FT	1160	901	914	938	778	778	1570	6560	11130	5410	2160	1460

WTR YR 1980 TOTAL 17021 MEAN 46.5 MAX 266 MIN 12 AC-FT 33760

13298000 EAST FORK SALMON RIVER NEAR CLAYTON, ID

LOCATION.--Lat 44°13'29", long 114°17'06", in NW¼NE¼SW¼ sec.1, T.10 N., R.18 E., Custer County, Hydrologic Unit 17060201, on right bank at county road crossing, 6 mi (9.7 km) southeast of Clayton, and at mile 3.9 (6.3 km).

DRAINAGE AREA.--532 mi² (1,378 km²).

PERIOD OF RECORD.--September 1928 to September 1939 (gage heights and discharge measurements only), May 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,510 ft (1,680 m), from topographic map. September 1928 to September 1939, nonrecording gage at present site and at datum approximately 5 ft (1.5 m) higher.

REMARKS.--Records good except those for winter period, which are fair. No regulation. Small diversions above station for irrigation.

AVERAGE DISCHARGE.--18 years (1929-39, 1974-80), 230 ft³/s (6.514 m³/s), 5.87 in/yr (149 mm/yr), 166,600 acre-ft/yr (205 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,020 ft³/s (114 m³/s) June 17, 1974, gage height, 10.60 ft (3.231 m), present datum, from rating curve extended above 1,400 ft³/s (39.6 m³/s); minimum discharge, 26 ft³/s (0.736 m³/s) Nov. 21, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,200 ft³/s (34.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 23	0830	1530	43.3	9.09	2.771	July 3	0815	1550	43.9	9.16	2.792
June 20	0545	*1800	51.0	9.37	2.856						

Minimum discharge, 26.8 ft³/s (0.759 m³/s) Dec. 12, gage height, 5.98 ft (1.823 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 21-24, 28-30, Dec. 2, 3, 5, 11, 12, 14-16, 27, 28, 31, Jan. 1, 16, 20, 21, 23, Feb. 3)

6.1	39	8.0	652
6.3	63	8.5	1000
6.6	112	9.0	1460
7.0	209	10.0	2730
7.5	391		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	82	97	139	101	141	77	82	400	516	1070	317	151
2	83	87	189	90	134	80	79	396	516	1020	306	144
3	85	97	280	93	126	80	79	466	496	1380	288	149
4	85	99	206	95	111	80	77	554	485	1190	273	142
5	87	99	156	95	88	79	79	677	466	1130	260	137
6	87	95	104	70	100	78	82	735	456	1000	250	133
7	83	93	85	60	101	71	79	741	441	874	240	135
8	85	87	83	87	83	75	77	735	432	889	234	146
9	85	87	82	110	74	77	80	728	466	904	231	146
10	82	85	82	106	81	78	82	646	640	889	224	156
11	82	88	48	61	92	83	82	554	904	802	218	184
12	82	79	44	122	102	79	82	490	965	721	209	187
13	82	82	70	153	112	76	85	456	838	652	206	204
14	80	77	87	133	110	81	95	427	775	605	206	223
15	90	72	97	106	108	82	106	418	728	527	206	205
16	101	82	104	97	105	68	108	418	664	501	218	186
17	93	92	95	97	104	69	116	414	830	496	212	174
18	95	87	88	92	105	86	142	418	1160	490	209	166
19	102	85	92	51	100	79	168	461	1470	456	209	172
20	102	71	99	48	89	78	215	532	1670	446	195	178
21	106	45	79	85	79	82	267	754	1650	451	176	186
22	114	56	80	77	77	80	284	1170	1630	466	171	181
23	112	102	72	95	75	80	284	1430	1590	446	168	175
24	110	101	82	99	70	78	302	1180	1260	456	166	167
25	108	102	80	91	78	74	337	934	1160	418	158	161
26	108	104	72	75	77	72	349	775	1260	374	158	152
27	104	76	44	63	80	83	370	671	1090	353	158	152
28	108	52	39	48	81	77	409	593	957	337	156	149
29	104	61	51	43	80	82	475	565	949	341	151	142
30	97	83	70	72	---	82	461	543	1050	337	153	136
31	97	---	92	111	---	77	---	522	---	325	153	---
TOTAL	2921	2523	2991	2726	2763	2423	5533	19803	27514	20346	6479	4919
MEAN	94.2	84.1	96.5	87.9	95.3	78.2	184	639	917	656	209	164
MAX	114	104	280	153	141	86	475	1430	1670	1380	317	223
MIN	80	45	39	43	70	68	77	396	432	325	151	133
AC-FT	5790	5000	5930	5410	5480	4810	10970	39280	54570	40360	12850	9760

CAL YR 1979 TOTAL 71764 MEAN 197 MAX 1480 MIN 39 AC-FT 142300
WTR YR 1980 TOTAL 100941 MEAN 276 MAX 1670 MIN 39 AC-FT 200200

13302500 SALMON RIVER AT SALMON, ID

LOCATION.--Lat 45°11'00", long 113°53'40", in NE¼NE¼ sec.6, T.21 N., R.22 E., Lemhi County, Hydrologic Unit 17060203, on left bank 1,000 ft (300 m) downstream from island, 0.4 mi (0.6 km) upstream from Lemhi River, 0.5 mi (0.8 km) downstream from highway bridge at Salmon, and at mile 258.9 (416.6 km).

DRAINAGE AREA.--3,760 mi² (9,740 km²), approximately. Mean altitude, 7,380 ft (2,250 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1912 to September 1916, July 1919 to current year. Monthly discharge only for some periods, published in WSP 1317.

REVISED RECORDS.--WSP 1043: Drainage area. WSP 1317: 1916.

GAGE.--Water-stage recorder. Datum of gage is 3,911.14 ft (1,192.115 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Oct. 21, 1929, nonrecording gage at site 700 ft (210 m) upstream at different datum.

REMARKS.--Records good. Diversions above station for irrigation of about 83,800 acres (33,900 hm²) of which about 900 acres (360 hm²) are by withdrawals from ground water (1966 determination).

AVERAGE DISCHARGE.--65 years, 1,966 ft³/s (55.68 m³/s), 1,424,000 acre-ft/yr (1,756 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,700 ft³/s (501 m³/s) June 17, 1974, gage height, 8.67 ft (2.643 m); maximum gage height, 9.62 ft (2.932 m) Jan. 8, 1942 (ice jam); minimum discharge, 242 ft³/s (6.85 m³/s) Jan. 8, 1937.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,730 ft³/s (219 m³/s) May 24, gage height, 5.55 ft (1.692 m); minimum, 608 ft³/s (17.2 m³/s) Jan. 30, gage height, 1.00 ft (0.305 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

1.0	601	4.0	4160
1.2	740	5.0	6240
2.0	1420	6.0	8800
3.0	2620		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	781	1240	844	977	805	1110	924	4020	4020	4470	1610	1040
2	795	1220	1050	1110	955	1070	946	4000	4160	4430	1560	1040
3	787	1200	1170	1090	1090	1090	946	4490	4250	4740	1490	1090
4	803	1230	1240	1040	1080	1130	938	4940	4000	4980	1430	1140
5	817	1260	1230	1090	1020	1110	954	5230	3860	4700	1390	1100
6	840	1240	1190	1080	974	1070	962	5510	3730	4380	1340	1060
7	845	1220	1200	962	991	1040	969	5840	3630	4090	1300	1040
8	840	1190	1180	922	997	1000	954	6070	3450	3850	1250	1060
9	839	1160	1170	993	933	992	946	6650	3350	3800	1200	1100
10	879	1150	1160	1110	886	1010	962	6650	3520	3620	1170	1120
11	880	1140	1110	1020	873	1010	962	5960	4090	3440	1140	1350
12	877	1150	946	946	888	1000	946	5210	4660	3260	1110	1590
13	886	1110	882	1120	928	973	946	4580	4940	3090	1100	1580
14	907	1100	1010	1340	963	966	954	4430	4760	2970	1090	1650
15	945	1090	1050	1370	1010	1000	1010	4020	4960	2900	1100	1650
16	1010	1070	1100	1310	1000	995	1080	3950	4540	2730	1110	1530
17	1100	1110	1100	1200	993	944	1130	3830	4300	2550	1160	1460
18	1120	1190	1050	1200	1040	953	1200	3660	4620	2450	1160	1390
19	1190	1180	993	1100	1180	996	1380	3700	5350	2350	1160	1370
20	1300	1140	1010	922	1340	977	1610	3900	6170	2230	1170	1470
21	1390	1060	1100	890	1250	969	1930	4360	6600	2160	1120	1480
22	1310	968	1100	977	1130	975	2270	5310	6700	2100	1090	1560
23	1280	1000	1090	985	1100	965	2410	6790	6840	2070	1100	1490
24	1250	1120	1020	1050	1080	990	2550	7600	6600	1990	1080	1440
25	1250	1170	1030	1100	1040	980	2810	6940	5800	1930	1030	1410
26	1220	1190	1060	1000	1060	970	2990	6310	5380	1860	1020	1400
27	1240	1160	1020	851	1110	960	3200	5460	5160	1770	1020	1360
28	1270	1030	898	764	1120	950	3420	4960	4740	1680	1020	1340
29	1280	863	850	691	1110	960	3760	4490	4360	1600	1030	1290
30	1270	777	805	680	---	950	4140	4230	4250	1610	1020	1230
31	1240	---	858	686	---	944	---	4120	---	1620	1030	---
TOTAL	32441	33728	32516	31576	29946	31049	50199	157210	142790	91420	36600	39830
MEAN	1046	1124	1049	1019	1033	1002	1673	5071	4760	2949	1181	1328
MAX	1390	1260	1240	1370	1340	1130	4140	7600	6840	4980	1610	1650
MIN	781	777	805	680	805	944	924	3660	3350	1600	1020	1040
AC-FT	64350	66900	64500	62630	59400	61590	99570	311800	283200	181300	72600	79000

CAL YR 1979 TOTAL 504707 MEAN 1383 MAX 6670 MIN 480 AC-FT 1001000
WTR YR 1980 TOTAL 709305 MEAN 1938 MAX 7600 MIN 680 AC-FT 1407000

13302500 SALMON RIVER AT SALMON, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT
OCT 25...	1615	1230	272	8.1	13.0	10.0	130	5	36	8.5	13	23
DEC 11...	1600	1090	245	--	1.5	.5	--	--	--	--	--	--
JAN 22...	1445	980	247	--	-1.5	2.0	--	--	--	--	--	--
MAR 30...	1300	964	241	--	1.0	5.0	--	--	--	--	--	--
MAY 14...	1800	4350	120	7.3	18.0	11.5	49	5	15	2.9	4.5	16
JUL 12...	1840	3200	153	8.2	23.5	17.0	63	0	19	3.8	5.7	16
SEP 14...	1710	1680	271	--	24.5	16.5	--	--	--	--	--	--

DATE	SODIUM AD-SORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT 25...	.5	2.0	120	22	4.3	.5	15	174	.24	578	.02	.010
DEC 11...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 22...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 30...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 14...	.3	.9	44	13	1.5	.3	15	80	.11	940	.06	.050
JUL 12...	.3	1.0	65	6.6	1.1	.4	12	89	.12	769	.00	.020
SEP 14...	--	--	--	--	--	--	--	--	--	--	--	--

13305000 LEMHI RIVER NEAR LEMHI, ID

LOCATION.--Lat 44°56'24", long 113°38'16", in NW¼NE¼ sec.32, T.19 N., R.24 E., Lemhi County, Hydrologic Unit 17060204, on right bank 35 ft (10.7 m) upstream from bridge on State Highway 28, 1.4 mi (2.3 km) south of Tendoy, 1.8 mi (2.9 km) upstream from Agency Creek, 6.2 mi (10.0 km) north of Lemhi, and at mile 28.8 (46.3 km).

DRAINAGE AREA.--895 mi² (2,320 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1938 to August 1939, April 1955 to September 1963, water years 1964-67 (annual maximum), August 1967 to current year.

REVISED RECORDS.--WSP 1397: 1939.

GAGE.--Water-stage recorder. Altitude of gage is 4,960 ft (1,512 m), from topographic map. Prior to Aug. 25, 1967, at site 1.5 mi (2.4 km) upstream at different datum. November 1938 to August 1939, nonrecording gage, Apr. 29, 1955, to Sept. 30, 1963, nonrecording gage and supplemental crest-stage gage, Oct. 1, 1963, to Aug. 24, 1967, crest-stage gage only.

REMARKS.--Records fair. State Fish Hatchery on Hayden Creek several miles upstream since fall 1966 may affect maximums and minimums. Diversions above station for irrigation of about 25,500 acres (10,300 hm²) of which about 200 acres (81 hm²) are by withdrawals from ground water (1966 determination).

AVERAGE DISCHARGE.--21 years (1956-63, 1968-80), 279 ft³/s (7.901 m³/s), 202,100 acre-ft/yr (249 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,990 ft³/s (56.4 m³/s) July 6, 1975, gage height, 6.39 ft (1.948 m) in gage well, 6.72 ft (2.048 m) from outside gage); minimum, 46 ft³/s (1.30 m³/s) Apr. 30, 1977, gage height, 2.53 ft (0.771 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 942 ft³/s (26.7 m³/s) May 25, gage height, 5.19 ft (1.582 m); minimum discharge, 113 ft³/s (3.20 m³/s) Oct. 1, 2, gage height, 3.21 ft (0.978 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Sept. 9-30; stage-discharge relation affected by ice Nov. 28 to Dec. 2, Dec. 12, 13, 29-31, Jan. 20-23, Jan. 26, to Feb. 3, Feb. 9-12)

3.3	126	4.5	540
3.5	164	5.0	835
4.0	320	5.5	1180

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	135	271	230	290	205	307	274	296	686	580	271	147
2	133	284	250	290	220	303	274	280	819	565	250	162
3	147	303	290	293	245	303	268	307	819	737	228	186
4	162	310	293	293	293	303	274	321	790	680	214	184
5	160	307	296	300	290	303	280	335	754	611	194	189
6	160	307	296	284	290	296	287	338	720	560	196	184
7	160	310	303	310	290	290	277	401	669	517	184	186
8	164	314	307	303	290	287	271	489	648	507	164	220
9	172	310	307	300	255	290	274	560	637	494	162	217
10	174	314	307	303	245	293	271	565	637	444	169	220
11	179	324	271	317	230	307	268	503	703	435	169	310
12	184	310	215	346	240	293	265	444	737	426	167	324
13	194	307	230	303	280	280	274	389	714	418	164	310
14	196	307	277	314	280	287	287	353	686	401	160	321
15	199	300	290	314	280	293	296	335	675	385	153	300
16	201	307	293	303	280	271	293	397	637	357	156	277
17	204	324	293	307	287	271	287	426	653	353	158	268
18	209	324	296	310	296	287	296	397	703	346	172	268
19	225	317	296	300	314	287	290	405	708	335	181	287
20	242	293	300	235	317	280	284	431	749	321	164	280
21	247	268	300	230	307	287	296	466	784	317	149	303
22	247	284	303	240	300	287	293	575	819	303	156	300
23	259	280	296	255	296	284	293	737	843	300	160	303
24	262	284	284	296	293	274	290	801	754	300	153	300
25	262	287	290	296	293	271	324	898	692	296	151	296
26	259	287	296	240	300	265	314	904	680	287	160	303
27	259	277	284	230	314	274	290	801	642	284	162	303
28	265	230	280	210	324	265	287	737	580	271	160	303
29	262	210	230	200	317	271	307	686	555	274	164	300
30	265	220	220	190	---	271	328	675	585	284	162	290
31	265	---	240	190	---	262	---	669	---	274	156	---
TOTAL	6452	8770	8663	8592	8171	8842	8612	15921	21078	12662	5409	7841
MEAN	208	292	279	277	282	285	287	514	703	408	174	261
MAX	265	324	307	346	324	307	328	904	843	737	271	324
MIN	133	210	215	190	205	262	265	280	555	271	149	147
AC-FT	12800	17400	17180	17040	16210	17540	17080	31580	41810	25120	10730	15550

CAL YR 1979 TOTAL 90607 MEAN 248 MAX 616 MIN 96 AC-FT 179700
WTR YR 1980 TOTAL 121013 MEAN 331 MAX 904 MIN 133 AC-FT 240000

13305000 LEMHI RIVER NEAR LEMHI, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.
REMARKS.--Miscellaneous chemical data published for water years 1973-74.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT
OCT 24...	1640	231	488	8.1	16.5	9.0	220	15	57	20	21	24
DEC 12...	1045	202	448	--	-.5	.0	--	--	--	--	--	--
JAN 23...	1030	254	358	--	1.0	.0	--	--	--	--	--	--
MAR 29...	1340	233	391	--	10.0	7.5	--	--	--	--	--	--
MAY 15...	1745	305	294	8.4	13.0	9.0	120	10	30	11	11	16
JUL 13...	0832	402	338	7.9	12.0	10.5	140	3	36	13	14	17
SEP 14...	1900	284	465	--	21.5	13.5	--	--	--	--	--	--

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 24...	.6	3.9	210	47	10	.3	24	310	.42	193	.07	.030
DEC 12...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 23...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 29...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 15...	.4	2.1	110	25	6.7	.2	17	169	.23	139	.07	.060
JUL 13...	.5	2.4	140	24	6.8	.2	18	199	.27	216	.05	.070
SEP 14...	--	--	--	--	--	--	--	--	--	--	--	--

13307000 SALMON RIVER NEAR SHOUP, ID

LOCATION.--Lat 45°19'20", long 114°26'23", in NE¼SW¼ sec.14, T.23 N., R.17 E., Lemhi County, Hydrologic Unit 17060203, Salmon National Forest, on right bank 0.6 mi (1.0 km) upstream from Owl Creek, 2.3 mi (3.7 km) downstream from Panther Creek, 9 mi (14.5 km) southwest of Shoup, and at mile 207.8 (334.4 km).

DRAINAGE AREA.--6,270 mi² (16,240 km²), approximately. Mean altitude, 7,140 ft (2,176 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1944 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,153.7 ft (961.25 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 18, 1951, nonrecording gage at different sites approximately 1.3 mi (2.1 km) upstream at different datums.

REMARKS.--Records good. Diversions above station for irrigation of about 149,000 acres (60,300 hm²) of which about 1,200 acres (486 hm²) are by withdrawals from ground water (1966 determination).

AVERAGE DISCHARGE.--36 years, 3,044 ft³/s (86.21 m³/s), 2,205,000 acre-ft/yr (2,719 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,700 ft³/s (727.8 m³/s) June 18, 1974, gage height, 13.13 ft (4.002 m); minimum, 710 ft³/s (20.1 m³/s) Aug. 20, 21, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,800 ft³/s (306 m³/s) May 24, gage height, 7.75 ft (2.362 m); minimum daily, 950 ft³/s (26.9 m³/s) Jan. 30.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Jan. 20-23, 25, Jan. 28 to Feb. 4)

1.8	896	4.0	3610
2.0	1090	6.0	7040
3.0	2240	8.0	11400

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1090	1810	1540	1530	1210	1750	1380	5800	6930	6260	2150	1440
2	1120	1810	1790	1640	1600	1680	1370	5590	7310	6290	2080	1450
3	1120	1810	1950	1660	2100	1640	1390	6010	7710	6480	1970	1520
4	1120	1830	1900	1570	2100	1700	1380	6590	7320	7180	1890	1540
5	1160	1910	1940	1590	2040	1700	1390	7060	7050	6650	1820	1570
6	1190	1890	1910	1590	2000	1660	1430	7340	6820	6210	1750	1530
7	1200	1850	1930	1470	1880	1580	1430	7910	6550	5780	1680	1500
8	1200	1820	1840	1370	1860	1540	1410	8500	6310	5330	1620	1540
9	1170	1800	1770	1480	1840	1490	1400	9430	6200	5220	1580	1580
10	1210	1760	1740	1700	1670	1500	1410	9970	6310	4940	1520	1600
11	1260	1760	1680	1470	1530	1530	1420	9070	6950	4660	1480	1910
12	1250	1740	1560	1440	1380	1520	1400	8030	7770	4370	1460	2280
13	1240	1690	1380	1670	1530	1480	1390	7120	8260	4160	1410	2310
14	1270	1650	1460	2040	1660	1460	1430	6570	8030	3930	1380	2290
15	1330	1630	1600	2090	1690	1510	1490	6140	8150	3830	1400	2340
16	1470	1620	1640	1930	1770	1480	1580	6110	7810	3640	1460	2200
17	1530	1700	1670	1810	1760	1420	1660	5990	7300	3380	1460	2070
18	1610	1800	1620	1720	1840	1440	1760	5770	7390	3170	1480	1990
19	1700	1800	1540	1550	1990	1450	1940	5690	8100	3050	1540	1970
20	1840	1720	1510	1300	2390	1480	2190	5930	8710	2910	1520	2020
21	1970	1580	1590	1260	2480	1460	2550	6450	9240	2780	1490	2090
22	1940	1440	1650	1360	2080	1460	3000	7410	9420	2670	1440	2120
23	1880	1500	1620	1410	1880	1450	3290	9090	9560	2610	1470	2140
24	1880	1590	1580	1460	1850	1430	3590	10600	9600	2540	1470	2090
25	1850	1730	1520	1500	1780	1410	3890	10200	8620	2460	1410	2040
26	1840	1730	1590	1330	1710	1390	4230	10100	7920	2350	1400	2030
27	1820	1700	1560	1100	1740	1390	4480	8870	7590	2240	1400	1990
28	1870	1500	1440	1040	1810	1380	4770	8140	7030	2150	1400	1970
29	1860	1300	1300	960	1790	1420	5210	7470	6480	2070	1390	1920
30	1870	1260	1250	950	---	1380	5900	7150	6140	2110	1400	1880
31	1840	---	1290	960	---	1380	---	6990	---	2180	1400	---
TOTAL	46700	50730	50360	45950	52960	46560	71160	233090	228580	123600	48320	56920
MEAN	1506	1691	1625	1482	1826	1502	2372	7519	7619	3987	1559	1897
MAX	1970	1910	1950	2090	2480	1750	5900	10600	9600	7180	2150	2340
MIN	1090	1260	1250	950	1210	1380	1370	5590	6140	2070	1380	1440
AC-FT	92630	100600	99890	91140	105000	92350	141100	462300	453400	245200	95840	112900

CAL YR 1979 TOTAL 797373 MEAN 2185 MAX 10500 MIN 898 AC-FT 1582000
WTR YR 1980 TOTAL 1054930 MEAN 2882 MAX 10600 MIN 950 AC-FT 2092000

13307000 SALMON RIVER NEAR SHOUP, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT
OCT 25...	1400	1820	329	8.0	18.0	9.0	140	13	39	11	16	26
DEC 11...	1245	1670	--	--	-4.0	.0	--	--	--	--	--	--
JAN 22...	1045	1320	259	--	-1.0	.0	--	--	--	--	--	--
MAR 30...	0905	1380	281	--	-1.0	6.0	--	--	--	--	--	--
MAY 15...	0930	6070	134	8.3	10.0	11.0	--	--	--	--	--	--
JUL 12...	1215	4340	175	7.9	23.5	17.0	69	0	20	4.7	7.7	19
SEP 14...	1230	2280	383	--	24.0	16.0	--	--	--	--	--	--

DATE	SODIUM AD-SORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT 25...	.6	2.6	130	30	6.2	.5	17	201	.27	988	.01	.030
DEC 11...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 22...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 30...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 15...	--	1.1	51	9.4	1.6	.3	--	42	.06	688	.05	.050
JUL 12...	.4	1.3	72	10	2.0	.4	13	102	.14	1200	.00	.040
SEP 14...	--	--	--	--	--	--	--	--	--	--	--	--

13309220 MIDDLE FORK SALMON RIVER AT MIDDLE FORK LODGE, NEAR YELLOW PINE, ID

LOCATION.--Lat 44°43'11", long 115°00'48", in NW¼SW¼SW¼ sec.16, T.16 N., R.12 E., Valley County, Hydrologic Unit 17060205, Boise National Forest, on left bank at Middle Fork Lodge, 325 ft (99.1 m) downstream from Middle Fork Lodge bridge, 0.4 mi (0.6 km) upstream from Thomas Creek, 1.8 mi (2.9 km) downstream from Marble Creek, 29 mi (47 km) southeast of Yellow Pine, and at mile 61.0 (98.1 km).

DRAINAGE AREA (revised).--1,040 mi² (2,690 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,380 ft (1,340 m) from topographic map.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--7 years, 1,524 ft³/s (43.16 m³/s), 26.82 in/yr (681 mm/yr), 1,104,000 acre-ft/yr (1,361 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,900 ft³/s (592 m³/s) June 16, 1974, gage height, 10.80 ft (3.292 m); minimum, 190 ft³/s (5.38 m³/s) Nov. 21, 1980, gage height, 1.32 ft (0.402 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,000 ft³/s (113 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 8	2400	7970	226	6.62	2.018
May 23	1230	*9320	264	7.19	2.192
June 22	(unknown)	6300	178	(unknown)	

Minimum discharge, 190 ft³/s (5.38 m³/s) Nov. 21, gage height, 1.32 ft (0.402 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

1.3	215	3.5	2210
1.4	271	4.0	2930
1.6	392	4.5	3750
2.0	670	5.0	4640
2.5	1090	6.0	6640
3.0	1600	7.1	9130

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	491	484	504	477	525	470	430	4590	3920	3350	1030	692
2	484	457	539	464	518	491	430	5470	4170	3220	982	718
3	477	464	546	430	491	464	437	5990	3890	3480	946	801
4	477	470	497	424	444	457	450	6280	3660	3410	928	738
5	470	464	477	450	430	411	457	6580	3580	3070	919	700
6	464	457	464	379	417	411	484	6980	3580	2760	893	685
7	470	450	464	330	424	336	470	7220	3500	2570	885	677
8	470	430	457	405	430	360	477	7470	3600	2460	876	708
9	457	411	437	417	398	360	504	7540	4400	2380	859	700
10	457	424	450	398	367	367	525	6750	5300	2200	859	723
11	457	430	360	336	392	398	511	5790	5800	2040	833	893
12	450	373	330	417	417	392	539	5170	6200	1900	809	833
13	450	398	430	532	437	386	632	4960	5700	1840	801	964
14	450	348	430	610	430	411	867	4750	5800	1780	793	964
15	484	342	444	560	424	405	982	4880	5200	1770	833	833
16	560	379	444	539	430	354	1100	4770	4800	1660	937	754
17	518	497	417	464	430	354	1320	4460	5500	1580	876	723
18	511	457	405	450	477	411	1790	4810	5900	1520	867	723
19	677	398	386	367	518	386	2210	5230	6000	1490	893	825
20	723	324	437	348	504	392	2660	5850	5800	1420	850	785
21	595	249	424	437	470	411	3170	6830	6200	1380	817	850
22	553	306	417	430	444	411	3330	7740	5800	1350	793	801
23	553	477	379	437	437	417	3750	9010	5400	1330	793	746
24	553	457	405	398	411	411	3850	7720	4700	1190	754	715
25	581	457	417	430	430	405	3730	6510	4300	1130	738	700
26	670	450	411	379	450	405	3780	5610	4190	1110	730	692
27	647	386	336	348	457	437	4260	4850	3960	1080	738	754
28	588	330	271	386	511	405	4680	4390	3630	1060	730	662
29	560	288	300	342	491	430	5100	4130	3460	1050	723	685
30	511	379	373	367	---	437	4790	3990	3510	1040	708	640
31	497	---	424	405	---	430	---	3830	---	1010	692	---
TOTAL	16305	12236	13075	13076	13004	12615	57715	180150	141450	58630	25885	22551
MEAN	526	408	422	422	448	407	1924	5811	4715	1891	835	755
MAX	723	497	546	610	525	491	5100	9010	6200	3480	1030	964
MIN	450	249	271	306	367	336	430	3830	3460	1010	692	640
AC-FT	32340	24270	25930	25940	25790	25020	114500	357300	280600	116300	51340	44930

CAL YR 1979 TOTAL 311524 MEAN 853 MAX 5970 MIN 249 AC-FT 617900
WTR YR 1980 TOTAL 566792 MEAN 1549 MAX 9010 MIN 249 AC-FT 1124000

13309220 MIDDLE FORK SALMON RIVER AT MIDDLE FORK LODGE, NEAR YELLOW PINE, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.
REMARKS.--Miscellaneous water-quality data published for water years 1974-75.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
NOV									
07...	1200	510	100	8.0	4.5	3.5	38	0	13
JAN									
24...	1550	425	88	--	-2.0	.0	--	--	--

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
NOV									
07...	1.3	5.0	22	.4	.4	51	0	42	5.7
JAN									
24...	--	--	--	--	--	--	--	--	--

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
NOV								
07...	.6	.6	12	64	.09	88.1	.01	.000
JAN								
24...	--	--	--	--	--	--	--	--

13310700 SOUTH FORK SALMON RIVER NEAR KRASSEL RANGER STATION, ID

LOCATION.--Lat 44°59'30", long 115°43'30", in NE¼ sec.16, T.19 N., R.6 E., Valley County, Hydrologic Unit 17060208, Payette National Forest, on right bank 0.6 mi (1.0 km) upstream from Fitsum Creek, 1.4 mi (2.3 km) downstream from Krassel ranger station, 2 mi (3.2 km) upstream from mouth of East Fork of South Fork Salmon River, 20 mi (32 km) east of McCall, and at mile 39.2 (63.1 km).

DRAINAGE AREA.--330 mi² (850 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,750 ft (1,143 m), from topographic map.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--14 years, 557 ft³/s (15.77 m³/s), 22.92 in/yr (582 mm/yr), 403,500 acre-ft/yr (498 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,740 ft³/s (191 m³/s) June 17, 1974, gage height, 10.00 ft (3.048 m); minimum, 38 ft³/s (1.08 m³/s) Nov. 27, 1976, gage height, 1.11 ft (0.338 m), result of freezeup.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 28, 1948, reached a discharge of 5,200 ft³/s (147 m³/s) by slope-area measurement at site 2.3 mi (3.7 km) upstream.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,500 ft³/s (42.5 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 7	0200	3080	87.2	6.75	2.057	June 22	0500	2210	62.6	5.77	1.759
May 23	0500	*3550	101	7.23	2.204						

Minimum discharge, 61 ft³/s (1.73 m³/s) Nov. 28, gage height, 1.31 ft (0.399 m), but may have been lower during period of ice effect.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 27-30, Dec. 11-14, 18-20, 23, 24, Dec. 27 to Jan. 1, Jan. 20 to Feb. 1, Feb. 9-12)

1.4	69	4.0	952
1.5	83	5.0	1610
2.0	169	6.0	2400
2.5	296	7.0	3320
3.0	467		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	97	146	202	169	295	227	166	2030	1360	1170	264	150
2	96	137	215	139	314	231	166	2180	1520	1170	255	155
3	96	140	230	130	290	225	165	2370	1350	1470	245	181
4	95	141	204	126	249	222	163	2500	1280	1290	238	166
5	95	142	167	148	198	221	174	2740	1250	1130	233	153
6	95	141	149	130	189	217	200	2930	1250	1030	227	147
7	95	135	144	119	184	204	191	2940	1190	947	220	145
8	94	129	140	142	168	199	183	2980	1170	878	216	142
9	93	122	137	136	150	191	200	2920	1360	824	211	144
10	93	116	142	144	140	188	232	2630	1700	769	207	153
11	94	123	107	135	150	193	222	2360	1920	706	202	190
12	94	111	94	173	150	190	228	2050	2130	653	202	193
13	94	116	131	279	157	187	260	1910	2000	615	201	208
14	94	110	135	464	136	219	345	1840	1990	587	195	224
15	112	115	137	461	132	253	420	1910	1810	581	192	185
16	159	133	136	337	132	217	479	1940	1680	528	215	165
17	124	159	128	270	137	201	561	1750	1840	495	207	157
18	120	147	122	228	187	218	775	1760	2020	468	199	170
19	262	124	122	171	334	200	990	1880	2110	445	216	235
20	249	99	124	148	339	193	1250	2180	2090	424	199	198
21	169	88	127	198	301	201	1540	2570	2070	406	190	203
22	155	119	126	175	259	195	1530	2980	2080	388	182	183
23	170	164	112	190	232	193	1720	3310	1950	370	178	172
24	176	160	122	185	206	186	2010	2580	1700	352	171	165
25	183	138	131	180	199	182	2130	2170	1520	334	164	159
26	310	127	128	175	194	180	1860	1920	1480	319	160	155
27	219	103	119	170	199	185	1940	1690	1360	309	160	152
28	187	70	90	160	225	173	2120	1550	1220	297	159	148
29	173	70	81	170	237	177	2390	1440	1190	290	154	145
30	159	140	122	184	---	175	2190	1410	1210	280	152	143
31	151	---	162	222	---	167	---	1340	---	269	152	---
TOTAL	4403	3765	4286	6078	6083	6210	26800	68760	48800	19794	6166	5086
MEAN	142	126	138	196	210	200	893	2218	1627	639	199	170
MAX	310	164	230	464	339	253	2390	3310	2130	1470	264	235
MIN	93	70	81	119	132	167	163	1340	1170	269	152	142
CFSM	.43	.38	.42	.59	.64	.61	2.71	6.72	4.93	1.94	.60	.52
IN.	.50	.42	.48	.69	.69	.70	3.02	7.75	5.50	2.23	.70	.57
AC-FT	8730	7470	8500	12060	12070	12320	53160	136400	96790	39260	12230	10090

CAL YR 1979 TOTAL 121088 MEAN 332 MAX 2490 MIN 70 CFSM 1.01 IN 13.65 AC-FT 240200
WTR YR 1980 TOTAL 206231 MEAN 563 MAX 3310 MIN 70 CFSM 1.71 IN 23.25 AC-FT 409100

13310700 SOUTH FORK SALMON RIVER NEAR KRASSEL RANGER STATION, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.
REMARKS.--Miscellaneous chemical data published for water years 1973, 1975.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT
NOV 04...	1440	141	58	7.6	7.0	5.0	12	0	4.9	.0	6.5	53
DEC 13...	1500	147	64	--	2.0	.0	--	--	--	--	--	--
FEB 07...	1238	169	55	--	4.5	.0	--	--	--	--	--	--
MAY 20...	1115	2180	24	6.8	16.0	6.0	7	0	2.4	.2	1.9	36
SEP 19...	1340	252	36	--	15.5	11.0	--	--	--	--	--	--

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
NOV 04...	.8	.4	24	.1	.8	.8	18	46	.06	17.5	.07	.000
DEC 13...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 07...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 20...	.3	.3	7	.7	.2	.1	11	21	.03	124	.04	.030
SEP 19...	--	--	--	--	--	--	--	--	--	--	--	--

13313000 JOHNSON CREEK AT YELLOW PINE, ID

LOCATION.--Lat 44°57'44", long 115°29'58", in NE¼ sec.29, T.19 N., R.8 E., Valley County, Hydrologic Unit 17060208, Boise National Forest, on right bank 700 ft (213 m) upstream from mouth and 0.2 mi (0.3 km) southwest of Yellow Pine.

DRAINAGE AREA.--213 mi² (552 km²). Mean altitude, 7,170 ft (2,185 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1928 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,655.75 ft (1,419.073 m) National Geodetic Vertical Datum of 1929. Prior to July 19, 1977, at site 385 ft (117 m) upstream at datum 1.95 ft (0.594 m) higher.

REMARKS.--Records good. Small diversion from Johnson Creek basin to Deadwood River basin (see REMARKS for sta 13236000).

AVERAGE DISCHARGE.--52 years, 349 ft³/s (9.88 m³/s), 22.25 in/yr (565 mm/yr), 252,900 acre-ft/yr (312 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,230 ft³/s (176 m³/s) June 17, 1974, gage height, 8.32 ft (2.536 m); minimum, 21 ft³/s (0.59 m³/s) Nov. 30, 1954, Nov. 20, 1979.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,800 ft³/s (51 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 8	2330	2220	62.9	5.34	1.628	May 22	2130	*2640	74.8	5.75	1.753

Minimum discharge, 21 ft³/s (0.59 m³/s) Nov. 20, gage height, 1.72 ft (0.524 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

1.8	26	2.9	322
1.9	41	3.3	554
2.1	80	4.0	1050
2.3	123	5.0	1900
2.5	174	6.2	2910

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	77	70	74	75	75	69	1170	1150	857	180	106
2	52	63	75	70	75	76	71	1360	1230	835	174	110
3	52	82	78	70	79	76	70	1480	1050	1010	169	128
4	52	76	76	69	76	76	70	1650	1000	894	163	114
5	52	75	74	72	71	76	74	1790	1000	770	161	106
6	52	73	74	54	72	75	75	2020	1000	694	155	101
7	52	67	73	62	72	73	71	1990	955	642	150	101
8	50	63	73	66	67	74	71	2080	986	597	148	97
9	50	59	72	68	64	73	75	1990	1190	591	145	97
10	50	64	72	66	65	74	75	1690	1410	530	143	101
11	50	65	50	64	66	76	73	1470	1550	482	138	130
12	50	52	65	73	67	74	73	1350	1660	447	135	126
13	50	53	69	90	69	74	83	1330	1500	430	133	138
14	50	53	71	95	68	80	100	1380	1550	407	128	153
15	64	52	73	91	70	78	112	1480	1380	407	135	130
16	88	61	70	83	69	70	119	1380	1300	360	150	114
17	76	77	69	80	70	70	139	1290	1450	338	138	106
18	73	74	67	76	80	76	180	1480	1560	317	140	112
19	115	64	65	50	91	72	230	1650	1600	304	145	150
20	109	37	68	61	86	72	317	1880	1550	286	135	135
21	91	39	68	79	77	74	461	2180	1600	273	128	134
22	84	55	68	69	74	72	510	2440	1540	260	123	126
23	87	74	60	78	72	72	643	2630	1430	245	121	117
24	91	70	71	75	68	68	737	2080	1250	235	117	109
25	100	70	69	75	72	67	760	1700	1160	221	112	105
26	135	68	67	69	71	70	799	1480	1110	214	110	102
27	113	59	54	61	73	73	933	1310	1020	205	112	99
28	101	44	34	63	77	68	1090	1220	924	198	112	96
29	93	46	55	68	77	73	1270	1180	902	195	108	94
30	82	60	63	68	---	71	1200	1140	917	189	108	93
31	81	---	71	74	---	69	---	1110	---	183	106	---
TOTAL	2299	1872	2084	2213	2113	2267	10550	50380	37924	13616	4222	3430
MEAN	74.2	62.4	67.2	71.4	72.9	73.1	352	1625	1264	439	136	114
MAX	135	82	78	95	91	80	1270	2630	1660	1010	180	153
MIN	50	37	34	50	64	67	69	1110	902	183	106	93
CFSM	.35	.29	.32	.34	.34	.34	1.65	7.63	5.93	2.06	.64	.54
IN.	.40	.33	.36	.39	.37	.40	1.84	8.80	6.62	2.38	.74	.60
AC-FT	4560	3710	4130	4390	4190	4500	20930	99930	75220	27010	8370	6800

CAL YR 1979 TOTAL 77714 MEAN 213 MAX 2060 MIN 34 CFSM 1.00 IN 13.57 AC-FT 154100
WTR YR 1980 TOTAL 132970 MEAN 363 MAX 2630 MIN 34 CFSM 1.70 IN 23.22 AC-FT 263700

13313000 JOHNSON CREEK AT YELLOW PINE, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.
REMARKS.--Miscellaneous chemical data published for water years 1973-74.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT
NOV 04...	1620	76	85	8.0	5.5	3.5	34	0	11	1.6	2.9	18
DEC 13...	1215	65	91	--	-2.0	.5	--	--	--	--	--	--
FEB 07...	1446	74	90	--	5.0	2.0	--	--	--	--	--	--
MAY 20...	1350	1710	32	6.8	20.0	5.5	12	3	3.9	.5	1.5	21
SEP 19...	1040	152	76	--	8.5	7.0	--	--	--	--	--	--

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
NOV 04...	.2	.7	43	.1	.3	.2	12	55	.07	11.3	.02	.000
DEC 13...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 07...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 20...	.2	.4	9	.9	.4	.1	9.3	23	.03	106	.04	.050
SEP 19...	--	--	--	--	--	--	--	--	--	--	--	--

13316500 LITTLE SALMON RIVER AT RIGGINS, ID

LOCATION.--Lat 45°24'47", long 116°19'29", SE¼SW¼ sec.15, T.24 N., R.1 E., Idaho County, Hydrologic Unit 17060210, on right bank 250 ft (76.2 m) upstream from highway bridge, at mile 0.5 (0.8 km), and 0.8 mi (1.3 km) southwest of Riggins.

DRAINAGE AREA.--576 mi² (1,492 km²). Mean altitude, 5,430 ft (1,655 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1951 to February 1955, September 1956 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,760 ft (536 m), from topographic map. Prior to Feb. 25, 1966, at datum 5.00 ft (1.52 m) higher.

REMARKS.--Records fair. Diversions above station for irrigation of about 15,300 acres (6,190 hm²) 1966 determination.

AVERAGE DISCHARGE.--27 years (1952-54, 1957-80), 824 ft³/s (23.3 m³/s), 597,000 acre-ft/yr (736 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,600 ft³/s (357 m³/s) June 17, 1974; maximum gage height, 12.39 ft (3.776 m) June 13, 1953; minimum discharge, 98 ft³/s (2.78 m³/s) Dec. 30, 1978, gage height, 1.96 ft (0.597 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood about June 1, 1948, reached a discharge of 9,200 ft³/s (261 m³/s) by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Peak above base of 2,000 ft³/s (56.6 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 29	0015	3610	102	6.65	2.027	May 22	0030	*3960	112	6.89	2.100
May 6	2130	3950	112	6.88	2.097	June 17	2345	3210	90.9	6.36	1.939

Minimum daily discharge, 119 ft³/s (3.37 m³/s) Oct. 12-14.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Feb. 20 to Mar. 1)

2.2	113	5.0	1660
2.5	165	6.0	2750
3.0	323	7.0	4130
4.0	855		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	123	177	172	177	225	639	464	2340	1830	1470	259	213
2	123	170	180	170	232	627	519	2630	2090	1430	251	225
3	123	172	192	167	219	621	540	2810	1800	1770	241	255
4	121	175	208	170	219	656	494	2890	1770	1690	235	241
5	121	185	203	190	219	771	535	3030	1710	1430	232	225
6	121	197	203	185	219	703	797	3460	1690	1300	232	211
7	121	190	197	177	211	633	610	3350	1650	1180	232	195
8	120	180	200	192	197	577	535	3090	1720	1080	222	192
9	120	172	205	197	187	550	594	3130	2060	994	225	180
10	120	165	211	195	185	572	746	2650	2330	945	222	192
11	120	165	177	175	185	627	627	2390	2500	822	216	259
12	119	156	185	195	182	572	639	2220	2760	709	211	255
13	119	159	187	327	187	519	697	2170	2570	650	205	351
14	119	154	185	519	185	822	829	2150	2770	633	211	494
15	132	154	185	727	182	1260	945	2310	2600	627	211	335
16	148	159	185	633	185	889	1010	2210	2440	572	208	266
17	142	172	182	550	229	697	1100	2020	2690	535	205	235
18	141	182	180	464	479	668	1300	2260	2820	494	232	229
19	295	172	175	331	777	621	1570	2420	2810	464	238	262
20	269	148	180	331	1020	605	1890	2810	2700	436	232	269
21	203	141	190	356	1080	715	2180	3130	2620	408	213	280
22	187	152	190	323	910	650	2340	3390	2510	386	211	255
23	229	165	180	292	740	691	2680	2930	2280	370	211	241
24	240	167	182	277	639	594	2710	2260	2020	351	205	232
25	266	167	190	266	572	550	2640	2000	1830	323	205	222
26	404	163	192	211	540	545	2470	1990	1830	303	200	216
27	284	150	175	185	561	514	2600	1820	1780	299	200	208
28	232	126	172	154	610	494	2860	1800	1580	284	205	205
29	208	126	159	161	633	535	3210	1730	1520	273	197	222
30	195	152	161	161	---	550	2500	1730	1520	262	190	222
31	187	---	177	205	---	484	---	1710	---	259	192	---
TOTAL	5452	4913	5760	8663	12009	19951	42631	76830	64800	22749	6749	7387
MEAN	176	164	186	279	414	644	1421	2478	2160	734	218	246
MAX	404	197	211	727	1080	1260	3210	3460	2820	1770	259	494
MIN	119	126	159	154	182	484	464	1710	1520	259	190	180
AC-FT	10810	9740	11420	17180	23820	39570	84560	152400	128500	45120	13390	14650

CAL YR 1979 TOTAL 214097 MEAN 587 MAX 3550 MIN 113 AC-FT 424700
WTR YR 1980 TOTAL 277894 MEAN 759 MAX 3460 MIN 119 AC-FT 551200

13316500 LITTLE SALMON RIVER AT RIGGINS, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971 to current year.
REMARKS.--Miscellaneous chemical data published for water year 1975.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT
OCT 24...	1615	236	138	--	15.0	9.5	--	--	--	--	--	--
NOV 28...	1513	123	--	--	-15.0	2.0	--	--	--	--	--	--
DEC 20...	1457	186	147	--	9.0	5.5	--	--	--	--	--	--
JAN 25...	1000	267	126	--	2.0	1.5	--	--	--	--	--	--
FEB 28...	1045	589	108	--	9.0	4.5	--	--	--	--	--	--
APR 24...	1540	2750	55	--	14.0	8.0	--	--	--	--	--	--
JUN 20...	1000	2620	51	7.2	16.5	11.0	18	1	5.6	.9	1.6	16
AUG 25...	1530	207	152	--	25.0	16.5	--	--	--	--	--	--
SEP 17...	1800	233	131	8.3	30.0	16.5	56	3	17	3.2	4.3	14

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 24...	--	--	--	--	--	--	--	--	--	--	--	--
NOV 28...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 20...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 25...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 28...	--	--	--	--	--	--	--	--	--	--	--	--
APR 24...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 20...	.2	.6	17	2.1	.2	.1	11	33	.04	233	.05	.020
AUG 25...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 17...	.3	1.7	53	9.8	.9	.1	17	86	.12	54.1	.00	.040

13317000 SALMON RIVER AT WHITE BIRD, ID

LOCATION.--Lat 45°45'01", long 116°19'23", in NE¼NW¼SW¼ sec.22, T.28 N., R.1 E., Idaho County, Hydrologic Unit 17060209, on left bank 0.1 mi (0.2 km) upstream from White Bird Creek, 0.6 mi (1.0 km) downstream from Canfield-Joseph highway bridge, 1 mi (1.6 km) southwest of White Bird, and at mile 53.7 (86.4 km). Records include flow of White Bird Creek.

DRAINAGE AREA.--13,550 mi^2 (35,090 km^2), approximately, includes that of White Bird Creek. Mean altitude, 6,720 ft (2,048 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1910 to September 1917, October 1919 to current year.

REVISED RECORDS.--WSP 753: 1932. WSP 1043: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,412.65 ft (430.576 m) National Geodetic Vertical Datum of 1929. Aug. 18, 1910, to Sept. 30, 1917, and Oct. 1, 1919, to Sept. 13, 1920, nonrecording gages at site 600 ft (183 m) downstream at different datum. Sept. 14, 1920, to Jan. 2, 1931, nonrecording gage on highway bridge 200 ft (61 m) upstream at datum 10 ft (3.05 m) higher.

REMARKS.--Records excellent. Diversions above station for irrigation of about 165,000 acres (66,800 hm^2) of which about 1,200 acres (490 hm^2) are by withdrawals from ground water (1966 determination).

AVERAGE DISCHARGE.--68 years, 11,250 ft^3/s (319 m^3/s), 11.27 in/yr (286 mm/yr), 8,151,000 acre-ft/yr (10,050 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 130,000 ft^3/s (3,680 m^3/s) June 17, 1974, gage height, 35.81 ft (10.915 m); minimum, 1,580 ft^3/s (44.7 m^3/s) Dec. 11, 1932, gage height, 10.23 ft (3.118 m), from rating curve extended below 2,200 ft^3/s (62.3 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 48,000 ft^3/s (1,360 m^3/s) May 23, gage height, 24.85 ft (7.574 m); minimum, 1,850 ft^3/s (52.4 m^3/s) Jan. 30, gage height, 11.07 ft (3.374 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 19 to July 21)

11.10	1,880		
11.50	2,340	17.00	14,700
12.00	3,040	20.00	26,000
13.00	4,650	23.00	39,800
15.00	9,010	26.00	56,500

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2930	4220	2580	3030	2510	5100	4330	31300	27800	21600	7000	4430
2	2900	4120	2920	3310	3120	5100	4290	31200	29100	21800	6960	4460
3	2890	4020	3660	3740	3600	5080	4270	35600	29700	23800	6690	4620
4	2920	4070	4340	3850	4240	5080	4240	38700	28900	25600	6410	4800
5	2900	4210	4620	3750	4210	5080	4290	41000	27500	24200	6250	4720
6	2930	4290	4460	3720	3990	5100	4510	43800	26700	21800	6060	4650
7	2960	4270	4330	3630	3760	5100	4480	45400	26100	20000	5870	4510
8	2970	4150	4310	3390	3780	4970	4440	45100	25100	18600	5730	4430
9	2960	4040	4220	3220	3630	4760	4390	46400	25500	17500	5570	4480
10	2940	3920	4100	3420	3530	4630	4650	45200	28000	16900	5460	4530
11	2940	3820	4020	3570	3360	4550	4720	41300	30800	15700	5320	4970
12	3000	3850	3720	3570	3210	4530	4780	36600	34100	14700	5230	5750
13	3010	3720	3450	3450	3180	4550	4910	33600	36000	13900	5080	6330
14	3000	3530	3340	4390	3310	4600	5340	31500	36100	13400	5000	6870
15	3070	3440	3500	5850	3440	5210	6180	30400	36400	13000	4930	6910
16	3390	3370	3740	6020	3450	5320	7120	30400	34000	12500	4910	6330
17	3710	3420	3870	5360	3500	4970	7910	28800	32500	11800	5170	5790
18	3830	3990	3820	4910	3680	4720	9170	28200	33600	11100	5290	5420
19	4020	4260	3740	4410	4260	4620	11400	29000	34600	10600	5320	5570
20	4550	4040	3590	3830	5020	4620	14000	32400	35800	10200	5440	6200
21	4850	3660	3540	3340	5630	4650	16900	36500	36100	9730	5290	6290
22	4690	3250	3680	3130	5770	4690	19500	41300	36100	9380	5080	6250
23	4550	2940	3740	3500	5320	4690	21500	46100	35300	8980	4890	6080
24	4510	3310	3680	3680	4870	4690	24600	46700	34400	8680	4850	5920
25	4530	3930	3570	3850	4650	4650	26000	42200	31100	8330	4780	5630
26	4950	3990	3630	3690	4510	4510	25000	39400	28600	8080	4670	5400
27	5150	3950	3680	3360	4530	4460	26500	36000	27400	7690	4550	5250
28	4870	3690	3530	2370	4630	4430	29400	32600	25300	7440	4560	5140
29	4670	3100	3160	2020	4970	4430	33600	30600	23400	7230	4530	5060
30	4530	2500	2870	1940	---	4500	33500	28900	22200	7050	4460	4970
31	4360	---	2850	2140	---	4430	---	28300	---	6930	4430	---
TOTAL	115480	113070	114260	113440	117680	147820	375920	1134500	918200	428220	165780	161760
MEAN	3725	3769	3686	3659	4058	4768	12530	36600	30610	13810	5348	5392
MAX	5150	4290	4620	6020	5770	5320	33600	46700	36400	25600	7000	6910
MIN	2890	2500	2580	1940	2510	4430	4240	28200	22200	6930	4430	4430
CFSM	.28	.28	.27	.27	.30	.35	.93	2.70	2.26	1.02	.40	.40
IN.	.32	.31	.31	.31	.32	.41	1.03	3.11	2.52	1.18	.46	.44
AC-FT	229100	224300	226600	225000	233400	293200	745600	2250000	1821000	849400	328800	320900

CAL YR 1979 TOTAL 2983290 MEAN 8173 MAX 53200 MIN 2370 CFSM .60 IN 8.19 AC-FT 5917000
WTR YR 1980 TOTAL 3906130 MEAN 10670 MAX 46700 MIN 1940 CFSM .79 IN 10.72 AC-FT 7748000

13317000 SALMON RIVER AT WHITE BIRD, ID--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959, 1966 to current year.
PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1977 to current year (discontinued).
WATER TEMPERATURES: October 1966 to current year (discontinued).
REMARKS.--Temperature and specific conductance observations made at approximately 0800 and 1700 on alternate days.
EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 241 micromho/cm Dec. 27, 1978; minimum, 51 micromho/cm May 25, 1979.
WATER TEMPERATURES: Maximum, 28°C on July 31 and Aug. 2, 1977; minimum, 0.0°C on many days during winter periods.
EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 227 micromho/cm Oct. 11; minimum, 55 micromho/cm May 7.
WATER TEMPERATURES: Maximum daily, 25°C Aug. 14, 16; minimum daily, Nov. 25, 27, 29.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT 24...	1230	4570	197	8.3	12.5	8.5	1.1	11.1	100	K10	35
NOV 28...	1000	3720	218	8.3	-5.0	.5	1.7	14.7	108	K2	92
DEC 20...	1100	3630	192	8.1	8.0	2.0	1.6	13.9	106	K3	K5
JAN 24...	1200	3690	174	7.8	9.5	1.0	2.2	14.2	103	K2	K8
FEB 27...	1230	4510	168	8.2	15.5	4.0	4.8	12.8	102	K7	--
APR 25...	1200	26300	80	7.8	22.0	9.0	16	11.9	108	45	820
MAY 15...	1430	31700	65	7.3	18.5	10.0	5.9	10.9	103	K7	K20
JUN 19...	1145	34200	75	7.4	25.5	14.5	4.9	8.9	92	K12	K10
JUL 23...	1200	9270	119	8.1	33.0	21.0	1.2	8.8	104	K1	26
AUG 26...	1300	4580	155	8.4	35.0	18.5	.80	9.7	109	K2	K17
SEP 17...	1130	5710	180	8.2	31.0	16.5	31	9.0	96	K12	26

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)
OCT 24...	79	0	23	5.2	9.9	21	.5	1.6	95	4	85
NOV 28...	92	5	26	6.5	10	25	.5	1.4	--	--	87
DEC 20...	75	0	21	5.4	9.0	27	.5	1.3	--	--	83
JAN 24...	66	0	19	4.5	7.9	20	.4	1.4	--	--	70
FEB 27...	67	0	19	4.7	9.1	22	.5	1.9	--	--	67
APR 25...	27	2	8.5	1.4	3.1	19	.3	1.0	--	--	25
MAY 15...	25	0	7.8	1.3	2.8	19	.2	.7	--	--	25
JUN 19...	25	0	7.7	1.3	3.0	20	.3	.7	--	--	27
JUL 23...	48	9	15	2.6	4.5	17	.3	1.0	--	--	39
AUG 26...	63	0	19	3.7	7.2	20	.4	1.3	--	--	72
SEP 17...	65	0	19	4.2	7.7	20	.4	1.6	--	--	70

K Results based on count outside ideal colony count range.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)
OCT 24...	17	3.0	.4	16	113	127	.15	1390	.04	.000	.38
NOV 28...	12	3.3	.5	17	126	129	.17	1270	.04	.010	.41
DEC 20...	16	2.8	.4	15	116	121	.16	1140	.07	.020	.82
JAN 24...	13	2.7	.4	16	117	107	.16	1170	.02	.060	.33
FEB 27...	12	3.1	.4	15	106	106	.14	1290	.20	.100	.47
APR 25...	3.9	.9	.2	13	53	47	.07	3760	.06	.030	.97
MAY 15...	2.3	.7	.2	12	50	44	.07	4280	.66	.040	.79
JUN 19...	1.8	.7	.2	11	43	43	.06	3970	.02	.010	.61
JUL 23...	11	1.2	.1	.3	70	59	.10	1750	.00	.010	.43
AUG 26...	1.5	1.9	.4	13	106	91	.14	1310	.00	.000	.33
SEP 17...	11	2.6	.4	15	125	104	.17	1930	.18	.000	.56

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, TOTAL (MG/L AS PO4)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED (MG/L AS C)
OCT 24...	.38	.11	.27	.42	1.9	.020	.06	.010	3.3	--	--
NOV 28...	.42	.02	.40	.46	2.0	.000	.00	.010	2.1	--	--
DEC 20...	.84	.03	.81	.91	4.0	.030	.09	.000	--	2.2	.2
JAN 24...	.39	.00	.43	.41	1.8	.030	.09	.060	3.1	--	--
FEB 27...	.57	.30	.27	.77	3.4	.030	.09	.020	3.8	--	--
APR 25...	1.0	.70	.30	1.1	4.7	.070	.21	.020	6.7	--	--
MAY 15...	.83	.43	.40	1.5	6.6	.040	.12	.010	3.7	--	--
JUN 19...	.62	.33	.29	.64	2.8	.090	.28	.010	--	2.7	.3
JUL 23...	.44	.00	.46	.44	1.9	.010	.03	.020	1.9	--	--
AUG 26...	.33	.03	.30	.33	1.5	.010	.03	.020	1.8	--	--
SEP 17...	.56	.24	.32	.74	3.3	.100	.31	.030	--	3.9	2.3

13317000 SALMON RIVER AT WHITE BIRD, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)
DEC 20...	2	0	2	200	<200	<100	1	0	<1	10	10
JUN 19...	1	0	1	0	0	<100	0	--	<1	0	0
SEP 17...	--	--	2	0	0	<100	0	0	1	10	0

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)
DEC 20...	0	0	0	<3	0	0	0	140	120	20
JUN 19...	0	0	--	<3	11	8	3	400	380	20
SEP 17...	20	2	--	<3	8	5	3	1800	1800	30

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)
DEC 20...	16	11	5	40	40	<10	.0	.0	.0
JAN 24...	--	--	--	--	--	--	--	--	--
APR 25...	--	--	--	--	--	--	--	--	--
JUN 19...	5	5	0	20	--	<10	.0	.0	.0
JUL 23...	--	--	--	--	--	--	--	--	--
SEP 17...	52	50	2	110	110	<10	--	--	.0

DATE	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, SUS-PENDED RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
DEC 20...	0	0	0	0	0	0	60	60	<10
JAN 24...	--	--	--	0	--	--	--	--	--
APR 25...	--	--	--	0	--	--	--	--	--
JUN 19...	0	0	0	0	0	0	30	--	<10
JUL 23...	--	--	--	0	--	--	--	--	--
SEP 17...	--	--	0	0	0	0	40	30	<10

13317000 SALMON RIVER AT WHITE BIRD, IDAHO--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO JULY 1980

DATE	NOV 28,79	MAY 15,80	JUN 19,80	JUL 23,80
TIME	1000	1430	1145	1200
TOTAL CELLS/ML	590	100	100	740
DIVERSITY: DIVISION	0.6	1.0	1.0	1.2
.CLASS	0.6	1.0	1.0	1.2
..ORDER	0.9	1.0	1.4	1.5
...FAMILY	3.2	1.0	1.8	2.1
....GENUS	3.5	1.0	1.8	2.5

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...COELASTRACEAE								
....COELASTRUM	--	-	--	-	--	-	210#	28
...OOCYSTACEAE								
....ANKISTRODESMUS	--	-	--	-	13	13	--	-
....DICTYOSPHAERIUM	--	-	--	-	--	-	52	7
....OOCYSTIS	--	-	--	-	--	-	13	2
....SELENASTRUM	--	-	--	-	--	-	230#	32
...SCENEDESMACEAE								
....SCENEDESMUS	--	-	52#	50	26#	25	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	36	6	52#	50	51#	50	77	11
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	30	5	--	-	--	-	--	-
....COCCONEIS	25	4	--	-	--	-	--	-
....RHOICOSPHENIA	15	3	--	-	13	13	--	-
...CYMBELLACEAE								
....CYMBELLA	30	6	--	-	--	-	--	-
....EPITHEMIA	25	4	--	-	--	-	--	-
...DIATOMACEAE								
....DIATOMA	86	15	--	-	--	-	--	-
...FRAGILARIACEAE								
....ASTERIONELLA	5	1	--	-	--	-	--	-
....SYNEDRA	20	3	--	-	--	-	--	-
...GOMPHONEMATACEAE								
....GOMPHONEMA	56	9	--	-	--	-	--	-
...NAVICULACEAE								
....NAVICULA	91#	15	--	-	--	-	--	-
...NITZSCHIACEAE								
....NITZSCHIA	81	14	--	-	--	-	52	7
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....ANACYSTIS	--	-	--	-	--	-	13	2
..HORMOGONALES								
...NOSTOCACEAE								
....ANABAENA	36	6	--	-	--	-	90	12
...OSCILLATORIACEAE								
....OSCILLATORIA	51	9	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

13317000 SALMON RIVER AT WHITE BIRD, ID--Continued

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ALDRIN, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-AZINON, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)
FEB 27...	1500	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA-THION, TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	METHYL PARA-THION, TOTAL (UG/L)	METHYL TRI-THION, TOTAL (UG/L)	PARA-THION, TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	TOTAL TRI-THION (UG/L)
FEB 27...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS)
DEC 20...	.078	.047	.003	<.009	10330
SEP 17...	8.27	5.67	.500	.000	5200

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 24...	1230	9	111	--
DEC 20...	1100	7	69	--
JAN 24...	1200	3	30	--
FEB 27...	1230	10	122	--
APR 25...	1200	110	7810	40
MAY 15...	1430	120	10300	19
JUN 19...	1145	65	6000	26
JUL 23...	1200	7	175	--
AUG 26...	1300	2	25	--
SEP 17...	1130	62	956	99

ND Not detected.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	200	201	---	203	---	---	203	203	---	---	158
2	204	---	---	197	---	204	200	---	---	197	152	---
3	---	206	204	---	202	---	---	205	196	---	---	187
4	209	---	---	204	---	208	198	---	---	196	151	---
5	---	210	208	---	201	---	---	200	194	---	---	171
6	211	---	---	206	---	213	209	---	---	194	144	---
7	---	222	207	---	199	---	---	192	199	---	---	151
8	216	---	---	202	---	189	188	---	---	194	155	---
9	---	219	208	---	192	---	---	187	187	---	---	166
10	219	---	---	207	---	191	192	---	---	183	170	---
11	---	227	208	---	185	---	---	193	180	---	---	158
12	221	---	---	211	---	186	189	---	---	184	161	---
13	---	226	217	---	186	---	---	189	188	---	---	163
14	224	---	---	210	---	193	190	---	---	190	166	---
15	---	219	211	---	190	---	---	176	185	---	---	155
16	210	---	---	210	---	193	168	---	---	184	140	---
17	---	212	212	---	198	---	---	174	205	---	---	154
18	208	---	---	210	---	196	168	---	---	191	157	---
19	---	206	212	---	202	---	---	166	188	---	---	168
20	195	---	---	212	---	196	176	---	---	174	168	---
21	---	206	204	---	193	---	---	174	163	---	---	152
22	203	---	---	199	---	194	173	---	---	167	172	---
23	---	203	201	---	189	---	---	182	156	---	---	191
24	203	---	---	206	---	194	183	---	---	177	160	---
25	---	208	208	---	193	---	---	193	171	---	---	160
26	205	---	---	215	---	197	191	---	---	171	173	---
27	---	190	205	---	193	---	---	193	176	---	---	168
28	194	---	---	203	---	192	200	---	---	157	172	---
29	---	189	204	---	194	---	---	202	154	---	---	161
30	194	---	---	205	---	189	203	---	---	---	173	---
31	---	196	---	---	193	---	---	206	---	---	---	188
MEAN	208	209	207	206	195	196	189	190	183	183	160	165

DAY	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	170	---	66	---	---	92	---	84	133	---		
2	---	162	---	68	81	---	83	---	---	139		
3	173	---	69	---	---	92	---	83	142	---		
4	---	173	---	68	88	---	78	---	---	144		
5	173	---	58	---	---	96	---	87	142	---		
6	---	168	---	58	122	---	89	---	---	144		
7	166	---	55	---	---	86	---	92	148	---		
8	---	169	---	56	83	---	93	---	---	147		
9	170	---	60	---	---	83	---	95	149	---		
10	---	152	---	60	80	---	95	---	---	150		
11	158	---	80	---	---	110	---	102	145	---		
12	---	142	---	66	68	---	100	---	---	145		
13	159	---	66	---	---	105	---	101	151	---		
14	---	159	---	71	82	---	103	---	---	150		
15	155	---	79	---	---	98	---	107	148	---		
16	---	148	---	69	69	---	109	---	---	155		
17	142	---	66	---	---	88	---	118	151	---		
18	---	127	---	76	82	---	113	---	---	150		
19	124	---	66	---	---	93	---	117	---	---		
20	---	106	---	69	68	---	114	---	---	---		
21	100	---	61	---	---	89	---	117	---	---		
22	---	89	---	56	76	---	118	---	---	---		
23	88	---	56	---	---	71	---	120	---	---		
24	---	78	---	58	71	---	126	---	---	---		
25	78	---	74	---	---	80	---	127	---	---		
26	---	73	---	68	76	---	133	---	---	---		
27	72	---	72	---	---	88	---	128	---	---		
28	---	71	---	93	79	---	133	---	---	---		
29	67	---	103	---	---	86	---	131	---	---		
30	---	66	---	81	83	---	134	---	---	---		
31	---	---	81	---	---	---	---	133	---	---		
MEAN	133	126	70	68	81	90	108	109	145	147		
YEAR	192	154										

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

13317000 SALMON RIVER AT WHITE BIRD, ID--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	16.0	8.0	---	3.0	---	---	3.0	3.0	---	---	9.0
2	14.0	---	---	9.0	---	6.0	3.0	---	---	5.0	7.0	---
3	---	16.0	8.0	---	5.0	---	---	5.0	4.0	---	---	9.0
4	14.0	---	---	10.0	---	5.0	2.0	---	---	4.0	6.0	---
5	---	15.0	8.0	---	3.0	---	---	5.0	2.0	---	---	8.0
6	14.0	---	---	8.0	---	6.0	3.0	---	---	5.0	5.0	---
7	---	16.0	5.0	---	4.0	---	---	2.0	4.0	---	---	8.0
8	14.0	---	---	8.0	---	5.0	2.0	---	---	5.0	6.0	---
9	---	14.0	6.0	---	5.0	---	---	2.0	3.0	---	---	9.0
10	12.0	---	---	8.0	---	5.0	4.0	---	---	5.0	6.0	---
11	---	14.0	6.0	---	3.0	---	---	6.0	3.0	---	---	6.0
12	13.0	---	---	6.0	---	5.0	4.0	---	---	6.0	6.0	---
13	---	15.0	5.0	---	4.0	---	---	6.0	6.0	---	---	9.0
14	13.0	---	---	5.0	---	6.0	6.0	---	---	5.0	7.0	---
15	---	13.0	3.0	---	5.0	---	---	4.0	4.0	---	---	9.0
16	12.0	---	---	8.0	---	5.0	3.0	---	---	4.0	5.0	---
17	---	13.0	5.0	---	5.0	---	---	6.0	6.0	---	---	6.0
18	12.0	---	---	4.0	---	6.0	5.0	---	---	7.0	6.0	---
19	---	14.0	5.0	---	4.0	---	---	3.0	6.0	---	---	9.0
20	12.0	---	---	5.0	---	6.0	2.0	---	---	7.0	7.0	---
21	---	13.0	3.0	---	5.0	---	---	5.0	5.0	---	---	9.0
22	12.0	---	---	3.0	---	6.0	4.0	---	---	4.0	7.0	---
23	---	13.0	3.0	---	3.0	---	---	6.0	4.0	---	---	10.0
24	10.0	---	---	5.0	---	5.0	4.0	---	---	5.0	7.0	---
25	---	12.0	.0	---	5.0	---	---	5.0	5.0	---	---	9.0
26	10.0	---	---	3.0	---	6.0	3.0	---	---	7.0	7.0	---
27	---	10.0	.0	---	3.0	---	---	1.0	5.0	---	---	7.0
28	10.0	---	---	3.0	---	5.0	1.0	---	---	6.0	6.0	---
29	---	12.0	.0	---	2.0	---	---	1.0	5.0	---	---	9.0
30	9.0	---	---	3.0	---	4.0	1.0	---	---	---	5.0	---
31	---	10.0	---	---	2.0	---	---	3.0	---	---	---	10.0
MEAN	12.0	14.0	4.5	6.0	4.0	5.5	3.0	4.0	4.5	5.5	6.0	8.5

DAY	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.0	---	10.0	---	---	12.0	---	17.0	23.0	---	---	20.0
2	---	9.0	---	11.0	11.0	---	16.0	---	---	24.0	16.0	---
3	7.0	---	11.0	---	---	12.0	---	17.0	22.0	---	---	20.0
4	---	9.0	---	14.0	10.0	---	15.0	---	---	22.0	17.0	---
5	7.0	---	10.0	---	---	11.0	---	17.0	18.0	---	---	20.0
6	---	7.0	---	10.0	11.0	---	15.0	---	---	23.0	17.0	---
7	7.0	---	10.0	---	---	12.0	---	18.0	18.0	---	---	22.0
8	---	9.0	---	10.0	10.0	---	18.0	---	---	22.0	17.0	---
9	8.0	---	10.0	---	---	13.0	---	20.0	20.0	---	---	21.0
10	---	10.0	---	12.0	13.0	---	18.0	---	---	24.0	17.0	---
11	8.0	---	10.0	---	---	14.0	---	20.0	20.0	---	---	22.0
12	---	10.0	---	10.0	14.0	---	18.0	---	---	24.0	19.0	---
13	10.0	---	9.0	---	---	13.0	---	19.0	23.0	---	---	20.0
14	---	12.0	---	12.0	13.0	---	18.0	---	---	25.0	17.0	---
15	10.0	---	11.0	---	---	14.0	---	20.0	22.0	---	---	18.0
16	---	12.0	---	11.0	12.0	---	17.0	---	---	25.0	15.0	---
17	10.0	---	10.0	---	---	14.0	---	20.0	22.0	---	---	17.0
18	---	12.0	---	12.0	12.0	---	18.0	---	---	20.0	17.0	---
19	11.0	---	11.0	---	---	15.0	---	22.0	18.0	---	---	19.0
20	---	12.0	---	14.0	14.0	---	18.0	---	---	22.0	21.0	---
21	12.0	---	12.0	---	---	15.0	---	22.0	19.0	---	---	17.0
22	---	12.0	---	11.0	13.0	---	22.0	---	---	22.0	15.0	---
23	11.0	---	10.0	---	---	14.0	---	24.0	17.0	---	---	15.0
24	---	12.0	---	10.0	13.0	---	22.0	---	---	22.0	12.0	---
25	10.0	---	8.0	---	---	15.0	---	24.0	18.0	---	---	15.0
26	---	10.0	---	9.0	13.0	---	22.0	---	---	22.0	13.0	---
27	10.0	---	10.0	---	---	14.0	---	24.0	18.0	---	---	18.0
28	---	12.0	---	11.0	13.0	---	22.0	---	---	20.0	12.0	---
29	12.0	---	9.0	---	---	16.0	---	24.0	15.0	---	---	15.0
30	---	10.0	---	12.0	15.0	---	22.0	---	---	22.0	13.0	---
31	---	---	12.0	---	---	---	---	24.0	18.0	---	---	---
MEAN	9.5	10.5	10.0	11.5	12.5	13.5	18.5	21.0	19.5	22.5	16.0	18.5
YEAR	10.0	11.5										

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

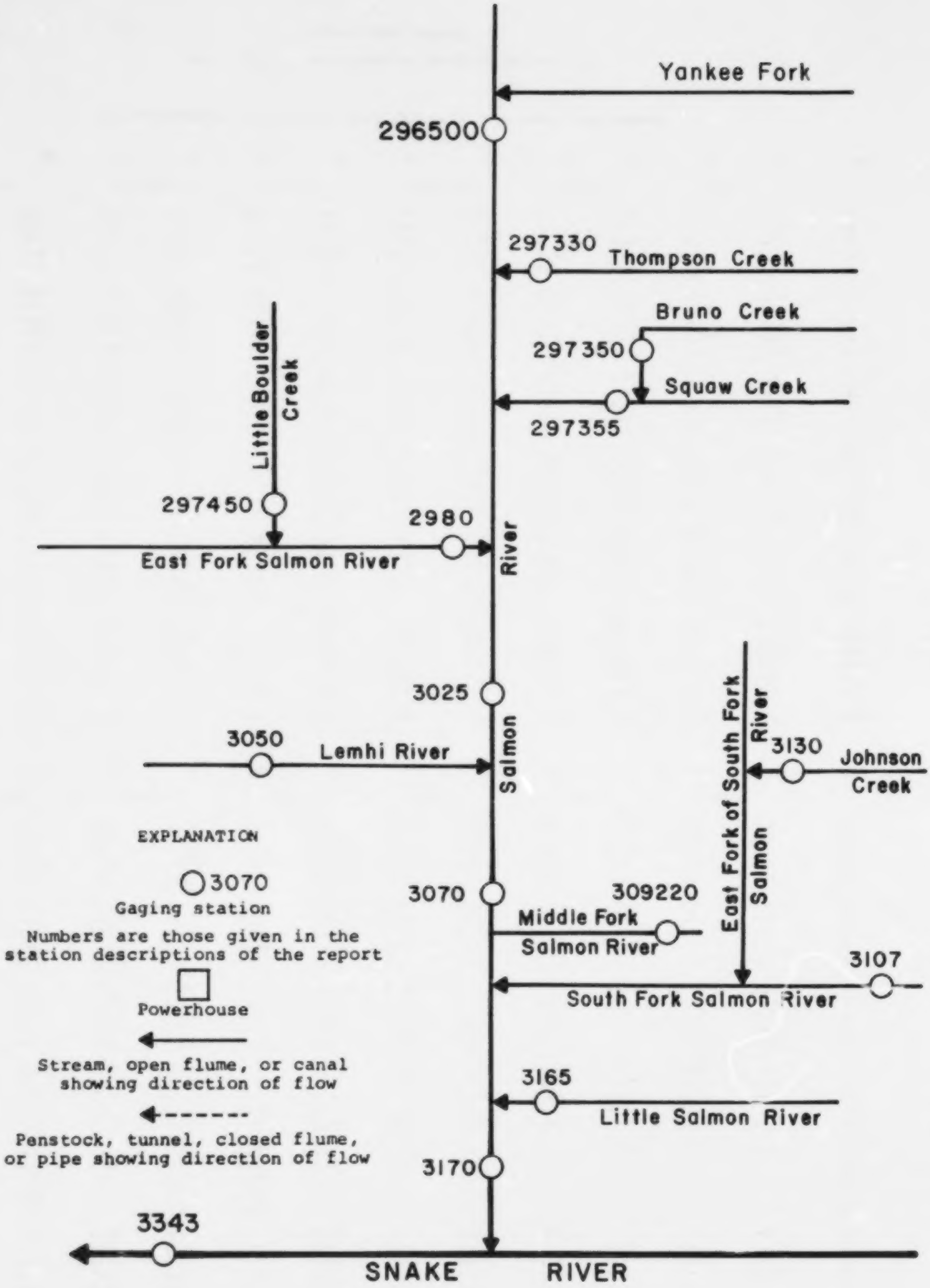

FIGURE 15.--Gaging stations in Salmon River basin.

13334300 SNAKE RIVER NEAR ANATONE, WA

LOCATION.--Lat 46°05'50", long 116°58'36", in SE¼SE¼NE¼ sec.12, T.7 N., R.46 E., Asotin County, Hydrologic Unit 17060103, on left bank 1.2 mi (1.9 km) downstream from Grande Ronde River, 7.8 mi (12.6 km) east of Anatone, 22 mi (35.4 km) south of Clarkston, and at mile 167.2 (269.0 km).

DRAINAGE AREA.--92,960 mi² (241,000 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1958 to current year.

REVISED RECORDS.--WDR ID-76-1: 1974 and 1975.

GAGE.--Water-stage recorder. Datum of gage is 806.78 ft (245.907 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Diversions above station for irrigation of about 4,090,000 acres (1,660 hm²) of which about 750,000 acres (304 hm²) are by withdrawal from ground water. Flow regulated by many reservoirs above station with a total usable capacity of more than 10,000,000 acre-feet (12,300 hm³), the most effective of which is Brownlee Reservoir 106.3 mi (171.0 km) upstream (see sta 13289700). Diurnal fluctuations caused by Hells Canyon powerplant.

AVERAGE DISCHARGE.--22 years, 35,780 ft³/s (1,013 m³/s), 25,920,000 acre-ft/yr (31,960 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 195,000 ft³/s (5,520 m³/s), revised, June 18, 1974, gage height, 24.45 ft (7.452 m); minimum, 6,010 ft³/s (170 m³/s) Sept. 2, 1958, gage height, 1.29 ft (0.393 m).

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 92,400 ft³/s (2,617 m³/s) June 12; minimum, 13,000 ft³/s (368 m³/s) Sept. 9, gage height, 3.50 ft (1.067 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

2.0	7650	8.0	38000
3.0	11000	11.0	62000
5.0	20000	16.0	107000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14600	18300	20500	16800	24700	24000	27700	72400	81300	45200	22100	13500
2	17200	20000	16300	20400	17900	20300	19100	71100	83400	42800	19800	17100
3	17100	19000	18000	24600	19100	21600	20800	71700	84500	43200	18400	16300
4	13700	16400	18100	20400	22900	25000	19500	75800	84000	46800	16900	14400
5	15000	16200	20400	17800	22900	26600	19600	80300	81700	47500	16900	17400
6	14900	17900	20600	16800	23500	26200	17200	85000	85300	45500	16600	17500
7	13300	17000	20700	21000	27000	26000	20300	79300	84000	44200	17000	18300
8	13300	17000	18200	23300	21600	27800	22400	73800	80900	40800	15800	15300
9	13300	18200	16400	23700	19900	27700	24700	77100	81700	37800	16400	16000
10	13600	16800	17200	22800	20200	28300	24100	76200	81400	39000	15100	14900
11	14100	16800	19900	25100	21000	27900	29100	72100	88400	37400	15300	14600
12	15100	17900	21500	24900	22700	30700	23700	67500	92400	33000	19300	14300
13	13700	19300	20600	17600	21800	24100	23500	61400	89400	31900	17400	15300
14	13700	21300	19900	19600	23900	22300	24400	63800	86800	28700	18100	16900
15	13600	20700	17900	22100	27100	21800	33300	67500	84800	27500	20000	18000
16	13700	20300	16500	23000	18500	24300	36000	69200	76500	26100	17200	20200
17	14100	23600	17800	25400	16800	26100	40700	67100	76800	28100	15900	22600
18	14400	20900	19500	25600	19400	24600	46100	65800	73700	27300	14700	22400
19	15700	23100	15300	29900	21900	27800	42900	66400	72400	25900	15900	25900
20	20100	22700	16000	22000	24400	27600	46600	70800	71300	21800	15200	24500
21	18600	19900	20700	23000	30200	27700	52300	76600	73200	21700	15200	19200
22	18500	17600	16900	23900	29900	26300	59700	82700	74600	23900	15000	24000
23	21200	23000	15300	23100	27100	23700	60900	84900	75700	27900	14700	24700
24	18400	17300	15000	22600	28400	26600	56500	85700	73500	23900	14400	22000
25	17700	16200	15300	23900	27800	28800	61400	80500	67100	26100	14300	22900
26	19200	20000	14400	20100	24800	26700	65400	79000	62300	23200	16600	24800
27	21500	22200	15700	21400	22000	29200	66400	85000	57500	21700	17000	23900
28	22300	22800	15700	25100	25300	28700	68800	84800	54500	21500	14300	25200
29	23300	21100	16400	27800	30700	21800	74000	84900	47200	21900	14000	26400
30	20800	20900	17800	28100	---	23300	75900	81100	45600	21900	13600	26100
31	19200	---	17800	26400	---	26800	---	80300	---	22100	13500	---
TOTAL	514900	584400	552300	708200	683400	800300	1203000	2339800	2271900	976300	506600	594600
MEAN	16610	19480	17820	22850	23570	25820	40100	75480	75730	31490	16340	19820
MAX	23300	23600	21500	29900	30700	30700	75900	85700	92400	47500	22100	26400
MIN	13300	16200	14400	16800	16800	20300	17200	61400	45600	21500	13500	13500
AC-FT	1021000	1159000	1095000	1405000	1356000	1587000	2386000	4641000	4506000	1936000	1005000	1179000

CAL YR 1979 TOTAL 10200430 MEAN 27950 MAX 78600 MIN 9830 AC-FT 20230000
WTR YR 1980 TOTAL 11735700 MEAN 32060 MAX 92400 MIN 13300 AC-FT 23280000

13334300 SNAKE RIVER NEAR ANATONE, WA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.
PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1959 to current year.
REMARKS.--May 23 and June 19, samples taken after Mt. St. Helens May 18, 1980, eruption and ashfall.
INSTRUMENTATION.--Temperature recorder since October 1959.
COOPERATION.--Temperature records furnished by Corps of Engineers.
EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum (1959-68, 1970-78), 25°C Aug. 11, 1960, Aug. 13, 1963, July 18, 1973; minimum, 0.0°C several days during winter months.
EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 23.5°C July 28; minimum, 1.0°C Jan. 27, 28, 31, and Feb. 1.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
OCT 25...	1000	16200	367	8.0	15.5	14.5	9.7	96	K5	--	--
NOV 21...	0830	17000	380	8.4	.0	8.0	11.4	98	K2	--	--
DEC 19...	0830	15300	388	8.2	5.5	6.0	12.0	99	K6	--	--
JAN 24...	0845	21800	364	8.1	2.0	4.0	13.2	104	<1	--	--
MAR 18...	0945	21200	281	7.8	12.0	6.5	12.0	100	K6	--	--
APR 23...	0815	59100	177	7.6	16.0	12.0	10.7	99	56	--	--
MAY 23...	1700	84700	129	8.1	--	12.5	10.6	104	47	85	.12
JUN 19...	0815	73500	213	7.6	23.0	17.0	9.3	96	26	--	--
JUL 23...	0800	29700	213	7.9	31.0	22.0	8.5	101	K19	--	--
AUG 15...	1000	19700	270	7.8	23.0	22.0	8.3	102	K13	--	--
SEP 24...	0845	21600	345	7.9	15.0	17.0	9.5	100	K7	--	--

DATE	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS PO4)
OCT 25...	--	9	.66	.71	.79	1.5	6.4	.10	.050	.15
NOV 21...	--	2	1.0	.48	.53	1.5	6.8	.06	.060	.18
DEC 19...	--	4	.72	.32	.40	1.1	5.0	.10	.060	.18
JAN 24...	--	4	1.0	.60	.66	1.7	7.3	.07	.060	.18
MAR 18...	--	8	.82	.62	.64	1.5	6.5	.02	.100	.31
APR 23...	--	23	.33	1.8	1.8	2.1	9.4	.05	.060	.18
MAY 23...	19400	--	.10	.44	.48	.58	2.6	.05	.050	.15
JUN 19...	--	14	.17	.43	.47	.64	2.8	.05	.040	.12
JUL 23...	--	0	.11	.65	.65	.76	3.4	.00	.040	.12
AUG 15...	--	11	.23	.39	.39	.62	2.7	.00	.070	.21
SEP 24...	--	6	.55	1.0	1.0	1.6	6.9	.00	.090	.28

K Results based on counts outside ideal colony count range.

13334300 SNAKE RIVER NEAR ANATONE, WA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
NOV 21...	6	0	6	19	80	5	.1	30
DEC 19...	--	0	0	13	70	6	--	20
MAR 18...	4	0	4	15	690	12	.0	20
MAY 23...	2	1	0	27	770	11	<1.0	<50
JUN 19...	2	0	--	16	760	6	<1.0	<50
SEP 24...	6	0	8	50	260	10	.0	30

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	GROSS ALPHA, DIS-SOLVED (PCI/L AS U-NAT)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)
MAR 18...	<1.8	<2.7	<.3	2.9	3.0	.7	.7
MAY 23...	<.5	<.7	1.0	1.7	1.6	1.5	1.6
JUN 19...	<1.2	<1.7	.4	2.2	2.1	.4	.4
SEP 24...	5.4	7.9	.3	5.2	4.9	.9	.9

13334300 SNAKE RIVER NEAR ANATONE, WA--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	19.0	18.5	12.5	12.0	7.0	6.0	4.5	4.0	1.5	1.0	6.0	5.0
2	19.0	18.0	12.0	12.0	6.5	6.0	5.0	4.0	2.0	1.5	6.0	5.0
3	18.5	18.0	12.5	11.5	6.5	6.0	5.0	4.5	2.0	1.5	6.5	6.0
4	18.0	17.0	11.5	11.5	7.0	6.5	5.0	4.5	2.0	2.0	6.5	6.0
5	18.5	17.5	11.5	11.0	6.5	6.0	4.5	4.0	2.0	2.0	6.0	5.0
6	18.5	17.5	12.0	11.5	6.5	6.5	4.0	3.0	2.0	2.0	5.0	4.5
7	18.5	17.5	11.5	11.0	7.0	6.5	3.5	3.0	2.5	2.0	5.5	4.5
8	18.5	17.5	11.0	11.0	6.5	6.5	3.5	3.0	2.5	2.0	6.0	5.0
9	18.0	17.0	11.0	10.5	6.5	6.0	3.0	1.5	3.0	2.5	6.0	5.5
10	17.5	16.5	10.5	10.0	6.5	6.0	3.0	2.0	3.0	3.0	7.0	6.0
11	17.5	16.5	10.0	10.0	6.0	5.0	3.5	3.0	3.0	3.0	7.0	7.0
12	17.5	17.0	10.0	9.5	5.5	5.5	3.5	3.0	3.5	3.0	7.0	6.0
13	17.5	16.5	10.0	9.5	5.5	5.5	3.5	1.5	3.0	3.0	7.0	6.0
14	17.5	16.5	10.0	9.0	6.0	5.5	4.0	2.5	3.0	2.5	6.5	6.5
15	17.0	17.0	9.5	9.0	6.0	6.0	4.0	3.5	3.0	2.5	6.5	5.5
16	17.0	16.5	9.0	7.5	6.0	5.5	4.0	3.5	3.0	2.5	6.5	5.5
17	16.5	16.0	10.0	9.0	6.0	5.5	4.0	4.0	3.5	2.5	6.0	6.0
18	15.5	15.0	9.5	8.5	6.5	6.0	4.0	3.5	4.5	3.5	7.0	6.0
19	15.0	14.5	9.0	8.5	6.0	5.5	3.5	2.5	5.0	4.0	7.5	6.5
20	15.0	14.5	9.0	8.0	5.5	5.5	2.5	2.0	5.0	4.5	7.0	6.5
21	15.0	14.5	8.0	7.5	6.0	5.5	3.0	2.5	5.0	4.5	6.5	6.5
22	14.0	14.0	8.0	7.5	6.0	5.5	3.5	3.0	4.5	4.0	7.5	6.5
23	14.5	14.0	9.0	7.5	5.0	4.5	3.5	3.5	4.5	4.0	8.0	7.0
24	14.0	14.0	8.5	7.5	4.5	4.0	4.0	3.0	4.5	4.0	7.5	6.5
25	14.0	14.0	7.5	7.0	5.0	4.5	3.5	3.0	5.0	4.0	7.5	6.5
26	14.0	13.5	7.5	7.0	4.5	4.5	3.0	1.5	5.5	4.5	7.0	6.5
27	13.5	13.5	7.5	7.0	5.0	4.5	2.0	1.0	6.0	5.5	7.0	6.5
28	13.5	13.0	7.5	6.5	5.0	4.0	2.0	1.0	6.0	5.5	8.0	6.5
29	13.5	13.0	7.0	6.5	4.5	4.0	2.0	1.5	6.0	5.0	7.5	7.0
30	13.0	12.5	7.0	6.5	4.0	4.0	2.0	1.5	---	---	7.5	6.5
31	13.0	12.0	---	---	4.0	2.5	2.0	1.0	---	---	8.0	6.5
MONTH	19.0	12.0	12.5	6.5	7.0	2.5	5.0	1.0	6.0	1.0	8.0	4.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.0	7.0	12.0	10.0	14.5	13.5	18.0	17.5	22.5	21.5	20.0	19.0
2	8.5	7.0	12.5	12.0	13.5	13.0	18.0	17.5	22.5	21.5	20.5	19.5
3	8.5	7.5	13.0	12.0	13.0	12.5	17.5	17.0	22.0	21.0	20.0	19.0
4	8.5	7.5	13.5	12.5	13.5	12.5	17.0	16.5	22.0	21.0	20.0	18.5
5	9.0	8.0	13.5	12.5	14.0	13.0	17.5	16.5	22.0	21.0	20.5	19.0
6	9.0	8.0	13.0	11.5	14.0	13.5	18.5	17.0	21.5	21.0	20.5	19.5
7	8.5	7.5	11.5	11.0	14.5	13.5	19.5	17.5	22.0	21.0	20.5	20.0
8	8.0	6.5	12.0	11.0	15.5	14.0	19.5	19.0	21.5	21.0	21.0	19.5
9	8.5	8.0	11.5	11.0	16.0	15.0	20.0	18.5	22.0	21.0	21.0	20.0
10	8.5	8.0	11.0	11.0	15.5	15.0	20.0	18.5	22.0	21.0	20.0	20.0
11	9.0	8.0	12.0	10.5	16.0	15.0	20.0	19.0	22.5	21.5	21.0	20.0
12	10.0	8.5	12.5	11.5	15.5	14.5	19.5	19.0	22.5	21.5	20.0	19.5
13	11.0	9.0	13.0	11.5	14.5	14.0	19.5	18.5	22.5	21.5	20.0	19.5
14	10.5	10.0	13.0	12.0	14.5	13.5	19.5	19.0	22.5	21.5	20.0	19.0
15	10.5	9.5	13.0	12.5	14.0	13.0	20.0	18.5	22.0	21.5	20.0	19.0
16	10.5	9.5	12.5	12.0	15.0	13.5	20.5	19.0	22.0	21.0	20.0	19.0
17	10.5	9.5	13.0	12.0	15.5	14.5	20.5	19.0	21.5	21.0	20.0	18.0
18	11.5	10.0	13.5	12.5	16.0	15.0	20.5	19.5	21.0	20.0	19.5	19.0
19	12.0	10.5	14.5	13.5	17.0	15.0	21.0	19.5	21.0	19.5	19.0	19.0
20	12.0	11.0	15.5	14.0	17.0	16.0	21.5	20.0	21.0	20.0	19.0	18.5
21	11.5	10.5	15.0	14.5	18.0	16.0	22.5	21.0	21.0	20.0	18.5	17.0
22	11.0	10.5	14.5	13.0	17.0	16.0	22.5	21.5	21.5	20.5	17.5	16.5
23	11.0	11.0	12.5	12.0	16.0	15.0	23.0	21.5	21.5	20.5	18.0	17.5
24	11.0	10.5	12.0	11.0	16.0	15.0	22.5	21.5	21.5	20.5	18.0	17.5
25	11.5	10.5	11.0	10.5	16.0	15.5	22.5	21.5	21.0	20.0	18.0	17.0
26	12.0	10.5	11.0	10.5	16.0	15.5	23.0	21.5	21.0	20.0	18.0	17.5
27	12.5	11.0	12.0	11.0	15.5	14.5	23.0	22.0	21.0	20.0	18.5	17.5
28	12.5	11.5	13.0	12.0	16.5	15.0	23.5	22.0	20.5	19.0	18.5	18.0
29	12.0	11.0	14.0	12.5	17.5	16.5	23.0	22.0	20.0	18.5	18.5	18.0
30	11.0	10.0	13.5	13.0	18.0	17.0	23.0	22.0	19.5	18.5	18.5	18.0
31	---	---	14.5	13.0	---	---	22.5	22.0	19.5	19.0	---	---
MONTH	12.5	6.5	15.5	10.0	18.0	12.5	23.5	16.5	22.5	18.5	21.0	16.5
YEAR	23.5	1.0										

13334700 ASOTIN CREEK BELOW KEARNEY GULCH, NEAR ASOTIN, WA

LOCATION.--Lat 46°19'35", long 117°09'06", in SW¼SE¼ sec.22, T.10 N., R.45 E., Asotin County, Hydrologic Unit 17060103, on left bank 0.3 mi (0.5 km) downstream from Kearney Gulch, 2.5 mi (4.0 km) upstream from George Creek, 5.0 mi (8.0 km) west of Asotin, and at mile 5.3 (8.5 km).

DRAINAGE AREA.--170 mi^2 (440 km^2).

PERIOD OF RECORD.--October 1959 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,090 ft (332 m) from topographic map.

REMARKS.--Records good. Several diversions for irrigation. Prior to Nov. 20, 1959, at a point 3.3 mi (5.3 km) upstream, the city of Clarkston diverted about 30 ft^3/s (0.85 m^3/s) for municipal use and irrigation. Natural low flows nearly equivalent to those of former station 3.3 mi (5.3 km) upstream. National Weather Service gage height telemeter at station.

AVERAGE DISCHARGE.--21 years, 76.8 ft^3/s (2.175 m^3/s), 55,640 acre-ft/yr (68.6 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 3,700 ft^3/s (105 m^3/s) Jan. 15, 1974; maximum gage height, 8.07 ft (2.460 m) Jan. 14, 1974; minimum discharge, 13 ft^3/s (0.37 m^3/s) Jan. 11, 1963, result of freezeup; minimum gage height, 0.69 ft^3/s (0.210 m^3/s) Aug. 14, 15, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 220 ft^3/s (6.23 m^3/s) and maximum (*):

Date	Time	Discharge		Gage height		Date	Time	Discharge		Gage height	
		(ft^3/s)	(m^3/s)	(ft)	(m)			(ft^3/s)	(m^3/s)	(ft)	(m)
Feb. 18	2300	*508	14.4	2.82	0.860	May 6	1530	228	6.46	1.98	0.604
Apr. 29	1015	253	7.16	2.07	0.631						

Minimum discharge, 27 ft^3/s (0.76 m^3/s) Nov. 29, gage height, 0.96 ft (0.293 m).

REVISIONS.--Revised figures of discharge for the water year 1979, superseding those published in the report for 1979 are given herein.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	40	47	30	28	78	85	180	108	51	28	39
2	38	40	42	28	27	73	80	193	106	53	29	39
3	38	40	41	27	30	69	85	196	110	48	28	38
4	38	41	52	25	35	66	85	225	112	47	28	39
5	38	40	50	24	45	71	80	332	106	50	28	38
6	38	41	46	24	70	100	85	354	106	47	28	36
7	38	41	42	24	66	153	100	276	100	47	28	36
8	38	41	38	25	64	165	110	219	92	44	27	35
9	38	42	36	27	258	134	115	185	87	42	27	37
10	37	41	42	32	106	112	110	165	85	42	27	35
11	37	42	47	47	125	100	100	153	83	42	27	35
12	37	38	44	50	162	98	94	148	81	42	27	35
13	37	40	41	54	388	96	92	155	78	41	29	35
14	38	40	41	50	188	94	89	165	74	40	33	34
15	38	41	42	48	128	102	87	188	71	38	33	34
16	38	38	40	47	104	81	85	217	69	37	33	34
17	40	38	41	46	91	78	96	211	80	37	53	33
18	38	38	42	43	83	76	100	188	83	36	61	32
19	38	40	41	43	80	74	98	190	71	36	45	31
20	38	40	40	46	73	78	91	185	66	36	46	32
21	40	40	40	50	71	78	87	185	63	36	40	32
22	40	40	40	48	68	83	85	201	61	35	38	32
23	40	40	41	45	64	92	94	228	59	35	37	33
24	40	40	42	45	63	92	108	225	56	33	44	33
25	40	40	42	45	66	80	108	203	54	31	39	33
26	40	40	41	45	78	89	108	198	53	31	38	34
27	40	40	39	45	83	106	112	188	54	32	48	35
28	40	43	36	40	81	115	128	160	51	35	49	34
29	40	42	33	35	---	110	153	137	50	35	41	34
30	40	47	30	33	---	100	175	121	50	33	40	34
31	40	---	30	29	---	90	---	112	---	32	41	---
TOTAL	1198	1214	1269	1200	2725	2933	3025	6083	2319	1224	1120	1041
MEAN	38.6	40.5	40.9	38.7	97.3	94.6	101	196	77.3	39.5	36.1	34.7
MAX	40	47	52	54	388	165	175	354	112	53	61	39
MIN	37	38	30	24	27	66	80	112	50	31	27	31
AC-FT	2380	2410	2520	2380	5410	5820	6000	12070	4600	2430	2220	2060

WTR YR 1979 TOTAL 25351 MEAN 69.5 MAX 388 MIN 24 AC-FT 50280

13334700 ASOTIN CREEK BELOW KEARNEY GULCH, NEAR ASOTIN, WA--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	40	42	45	55	114	68	177	117	69	41	42
2	36	40	50	45	70	108	68	183	114	73	41	42
3	35	40	53	45	84	106	66	185	112	71	41	41
4	35	42	66	45	75	110	64	193	110	69	41	40
5	35	42	78	48	72	112	63	201	108	68	41	40
6	35	41	68	45	72	106	68	222	106	64	41	41
7	35	40	63	42	72	100	68	203	104	61	40	44
8	36	40	61	44	71	94	66	180	102	59	41	41
9	36	40	59	45	70	91	69	196	100	63	41	41
10	36	40	64	47	69	89	74	185	98	64	40	42
11	36	40	64	56	65	89	74	172	96	59	40	42
12	36	38	63	85	65	87	76	160	128	61	40	41
13	36	38	59	96	65	87	81	167	201	66	40	58
14	36	38	58	110	60	96	100	162	193	61	41	58
15	42	38	54	128	55	96	117	183	175	59	38	50
16	38	40	54	114	67	94	119	188	155	58	33	45
17	38	45	53	104	74	92	121	177	139	54	36	44
18	38	45	51	92	201	89	141	167	128	53	41	44
19	48	41	51	83	167	85	157	155	117	50	45	45
20	47	38	51	76	132	87	172	148	108	48	42	44
21	42	37	50	73	123	87	177	146	100	48	42	45
22	41	38	50	66	108	85	185	150	98	47	41	45
23	45	38	48	63	96	83	188	139	102	45	41	44
24	45	40	48	59	87	83	180	125	91	44	40	42
25	48	41	50	58	81	80	172	117	87	44	40	42
26	51	40	48	48	81	80	172	123	89	44	41	42
27	44	38	47	40	92	78	180	117	83	44	41	42
28	42	35	45	35	112	74	198	117	80	44	41	41
29	42	31	45	40	125	73	239	119	74	44	40	41
30	41	40	45	40	---	71	209	119	73	42	40	41
31	41	---	47	45	---	68	---	117	---	42	41	---
TOTAL	1236	1184	1685	1962	2566	2794	3732	4993	3388	1718	1252	1310
MEAN	39.9	39.5	54.4	63.3	88.5	90.1	124	161	113	55.4	40.4	43.7
MAX	51	45	78	128	201	114	239	222	201	73	45	58
MIN	35	31	42	35	55	68	63	117	73	42	33	40
AC-FT	2450	2350	3340	3890	5090	5540	7400	9900	6720	3410	2480	2600

CAL YR 1979 TOTAL 25775 MEAN 70.6 MAX 388 MIN 24 AC-FT 51120
WTR YR 1980 TOTAL 27820 MEAN 76.0 MAX 239 MIN 31 AC-FT 55180

13336500 SELWAY RIVER NEAR LOWELL, ID

LOCATION.--Lat 46°05'12", long 115°30'46", in NW¼SE¼NE¼ sec.25, T.32 N., R.7 E., Idaho County, Hydrologic Unit 17060302, Nezperce National Forest, on right bank 0.2 mi (0.3 km) upstream from O'Hara Creek, 7 mi (11.3 km) upstream from Lowell, 7.6 mi (12.2 km) upstream from confluence with Lochsa River, and 105.2 mi (169.3 km) upstream from mouth of Clearwater River.

DRAINAGE AREA.--1,910 mi^2 (4,950 km^2), approximately. Mean altitude, 5,640 ft (1,719 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1911 to September 1912 (gage heights or fragmentary discharge records only), October 1929 to current year. Monthly discharge only for October 1929, published in WSP 1317.

REVISED RECORDS.--WSP 1043: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 1,540 ft (469 m) from river-profile map. Apr. 11 to Sept. 2, 1911, nonrecording gage at site 2 mi (3.2 km) downstream at different datum. Feb. 7 to Sept. 22, 1912, and Oct. 14, 1929, to Nov. 19, 1930, nonrecording gages at nearby sites at different datum.

REMARKS.--Records good. Small diversions from headwaters.

AVERAGE DISCHARGE.--51 years (1929-80), 3,802 ft^3/s (108 m^3/s), 27.03 in/yr (687 mm/yr), 2,755,000 acre-ft/yr (3,397 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48,900 ft^3/s (1,380 m^3/s) May 29, 1948, gage height, 16.04 ft (4.889 m); minimum, probably less than 100 ft^3/s (2.83 m^3/s) Jan. 8, 1937, during period of ice effect.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 18,400 ft^3/s (521 m^3/s) May 6, gage height, 9.47 ft (2.886 m), only peak above base of 18,000 ft^3/s (510 m^3/s); minimum discharge, 280 ft^3/s (7.93 m^3/s) Nov. 29, gage height, 2.53 ft (0.771 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 30 to Dec. 1, Jan. 9-11, Jan. 28 to Feb. 1)

2.6	315	5.0	3280
2.8	430	6.0	5630
3.0	565	8.0	12100
3.5	1000	10.0	20800
4.0	1610	12.0	30700

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	418	571	520	668	600	1850	1030	12000	9470	4490	1290	727
2	412	542	732	726	793	1730	1010	14500	10600	4560	1260	803
3	406	521	991	707	908	1660	1000	16200	9920	6200	1180	1020
4	400	572	1110	651	968	1880	1020	16200	9650	6070	1170	868
5	400	579	1250	705	887	1980	1060	16400	9240	5220	1120	741
6	398	583	929	677	798	1890	1250	17100	9060	4780	1080	690
7	394	563	899	602	772	1740	1280	15600	8660	4300	1040	666
8	391	529	852	580	761	1640	1200	14900	8690	4060	1000	651
9	386	507	817	560	743	1560	1250	14600	9900	3820	968	640
10	382	497	1010	540	737	1510	1480	13300	11300	3690	938	631
11	387	493	937	590	731	1570	1500	11300	12400	3330	912	1210
12	385	491	765	655	725	1540	1590	10400	12200	3080	892	1170
13	382	424	774	1120	730	1460	1810	9990	11600	3010	863	944
14	382	350	757	1510	711	1460	2380	9760	10600	2960	839	1000
15	410	385	774	1770	694	1460	3040	10100	12200	3170	822	842
16	485	430	837	1460	678	1370	3160	10500	10400	2890	816	757
17	521	572	810	1230	676	1300	3580	9040	10700	2600	809	721
18	508	792	892	1080	745	1320	5010	9490	10800	2420	960	716
19	743	664	846	806	1040	1310	6490	10000	10200	2290	1050	1300
20	838	544	799	595	1390	1280	7900	12400	9500	2160	914	1790
21	693	443	770	808	1520	1280	9750	14700	8780	2050	843	2010
22	600	337	760	922	1420	1270	10200	15500	8160	1940	799	2120
23	633	400	709	840	1330	1260	11700	15200	7540	1850	771	1790
24	718	642	680	845	1230	1230	13600	11300	6690	1750	746	1750
25	706	592	713	820	1170	1160	11900	10300	5940	1660	717	1580
26	858	554	702	523	1160	1130	13100	10100	5670	1590	698	1410
27	829	535	665	437	1250	1140	14700	9610	5990	1530	692	1280
28	732	444	613	380	1590	1090	16000	9250	5150	1460	703	1190
29	717	320	507	360	1940	1070	17100	9290	4590	1400	686	1110
30	657	315	420	380	---	1100	13300	9070	4490	1330	662	1050
31	604	---	561	430	---	1050	---	9050	---	1280	680	---
TOTAL	16775	15191	24401	23977	28697	44290	179390	377150	270090	92940	27920	33177
MEAN	541	506	787	773	990	1429	5980	12170	9003	2998	901	1106
MAX	858	792	1250	1770	1940	1980	17100	17100	12400	6200	1290	2120
MIN	382	315	420	360	600	1050	1000	9040	4490	1280	662	631
CFSM	.28	.27	.41	.41	.52	.75	3.13	6.37	4.71	1.57	.47	.58
IN.	.33	.30	.48	.47	.56	.86	3.49	7.35	5.26	1.81	.54	.65
AC-FT	33270	30130	48400	47560	56920	87850	355800	748100	535700	184300	55380	65810

CAL YR 1979 TOTAL 1146807 MEAN 3142 MAX 24000 MIN 315 CFSM 1.65 IN 22.34 AC-FT 2275000
WTR YR 1980 TOTAL 1133998 MEAN 3098 MAX 17100 MIN 315 CFSM 1.62 IN 22.09 AC-FT 2249000

13336500 SELWAY RIVER NEAR LOWELL, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.
REMARKS.--Miscellaneous chemical data published for water years 1973 and 1977.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT
OCT 06...	1700	396	40	--	17.0	12.0	--	--	--	--	--	--
NOV 10...	1115	510	36	--	7.0	4.5	--	--	--	--	--	--
20...	1045	524	36	8.3	4.0	2.0	11	0	3.7	.5	2.6	36
JAN 02...	1445	698	37	--	5.5	1.5	--	--	--	--	--	--
FEB 09...	1440	723	34	--	19.5	1.5	--	--	--	--	--	--
APR 05...	1045	1040	36	--	16.0	7.5	--	--	--	--	--	--
MAY 03...	1110	17200	13	--	19.5	7.5	--	--	--	--	--	--
JUN 26...	1030	5710	18	6.6	15.0	13.0	5	0	1.8	.2	1.2	31

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 06...	--	--	--	--	--	--	--	--	--	--	--	--
NOV 10...	--	--	--	--	--	--	--	--	--	--	--	--
20...	.3	.6	13	4.7	.4	.1	13	34	.05	48.1	.02	.020
JAN 02...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 09...	--	--	--	--	--	--	--	--	--	--	--	--
APR 05...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 03...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 26...	.2	.3	7	1.2	.2	.1	8.3	18	.02	278	.14	.000

13337000 LOCHSA RIVER NEAR LOWELL, ID

LOCATION.--Lat 46°09'02", long 115°35'11", in SW¼SW¼SE¼ sec.33, T.33 N., R.7 E., Idaho County, Hydrologic Unit 17060303, Clearwater National Forest, on right bank 0.7 mi (1.1 km) upstream from Lowell, 0.9 mi (1.4 km) upstream from confluence with Selway River, 1.2 mi (1.9 km) downstream from Pete King Creek, and 19 mi (30.6 km) east of Kooskia.

DRAINAGE AREA.--1,180 mi² (3,060 km²), approximately. Mean altitude, 5,250 ft (1,600 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1910 to September 1912, October 1929 to current year. Monthly discharge only for some periods, published in WSP 1317.

GAGE.--Water-stage recorder. Datum of gage is 1,452.98 ft (442.868 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 21, 1930, nonrecording gages at site 1 mi (1.6 km) upstream at different datums.

REMARKS.--Records good.

AVERAGE DISCHARGE.--53 years, 2,899 ft³/s (82.1 m³/s), 33.36 in/yr (847 mm/yr), 2,100,000 acre-ft/yr (2.59 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 35,100 ft³/s (994 m³/s) June 8, 1964, gage height, 13.50 ft (4.115 m), from rating curve extended above 17,000 ft³/s (481 m³/s); minimum, probably less than 100 ft³/s (2.8 m³/s) Jan. 8, 1937, during period of ice effect.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 12,000 ft³/s (340 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 29	0500	*15300	433	8.81	2.685
May 6	0345	15000	425	8.71	2.655
May 22	0315	13600	385	8.31	2.533

Minimum discharge, 182 ft³/s (5.15 m³/s) Nov. 29, gage height, 1.50 ft (0.457 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 30, Jan. 10-11, Jan. 28 to Feb. 1)

1.5	182		
1.7	262	4.0	2740
2.0	420	5.5	5660
2.5	805	7.5	10800
3.0	1340	10.0	19500

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	286	439	361	537	660	1550	866	9820	7910	3000	872	563
2	291	409	593	570	845	1490	865	11100	8800	2950	843	673
3	286	392	918	590	1020	1450	882	13000	7980	3530	834	911
4	281	414	1200	524	1160	1780	919	13300	7470	3230	834	698
5	276	426	1390	594	965	1660	1000	13600	7140	2970	797	578
6	276	414	942	533	868	1490	1280	14100	6910	2790	760	527
7	276	398	974	507	788	1420	1270	12900	6650	2550	733	506
8	275	381	882	478	719	1350	1170	12000	6500	2350	707	485
9	274	359	812	443	656	1270	1230	11600	7210	2240	681	472
10	272	365	1040	420	641	1250	1440	10600	8040	2200	665	459
11	274	364	864	410	623	1330	1430	9170	8740	2040	649	563
12	276	348	765	526	613	1290	1540	8320	8950	1890	633	716
13	274	295	695	1070	600	1230	1760	7930	8460	1870	617	707
14	272	230	651	1330	569	1240	2280	7840	7590	1980	601	760
15	285	254	687	1560	546	1230	3020	7930	9790	2200	585	601
16	330	295	731	1250	542	1160	3090	8130	8030	1970	570	541
17	400	444	713	1080	581	1100	3450	7170	7860	1750	563	520
18	398	681	873	939	683	1100	4470	7340	7640	1620	769	513
19	725	547	786	721	977	1090	5620	7710	7130	1530	797	725
20	769	436	723	651	1260	1050	6800	9440	6460	1460	690	1370
21	601	338	689	780	1350	1050	7960	11600	6000	1400	625	1890
22	492	294	700	708	1240	1040	8540	12200	5500	1330	585	1470
23	520	312	614	696	1140	1040	9570	11700	5100	1260	556	1160
24	548	421	590	690	1060	1000	11700	8690	4550	1190	534	1090
25	563	413	606	661	999	946	10300	8300	4080	1140	513	1000
26	862	370	626	453	999	928	10300	8610	3910	1090	499	891
27	742	354	584	378	1070	943	11600	8050	4310	1030	492	815
28	641	262	521	335	1340	911	13000	7630	3790	991	499	751
29	601	210	472	340	1610	895	14200	7660	3350	950	499	707
30	527	230	442	380	---	939	11200	7510	3150	901	478	673
31	478	---	451	480	---	889	---	7450	---	872	492	---
TOTAL	13371	11095	22895	20634	26124	37113	152752	302400	199000	58274	19972	23335
MEAN	431	370	739	666	901	1197	5092	9755	6633	1880	644	778
MAX	862	681	1390	1560	1610	1780	14200	14100	9790	3530	872	1890
MIN	272	210	361	335	542	889	865	7170	3150	872	478	459
CFSM	.37	.31	.63	.56	.76	1.01	4.32	8.27	5.62	1.59	.55	.66
IN.	.42	.35	.72	.65	.82	1.17	4.82	9.53	6.27	1.84	.63	.74
AC-FT	26520	22010	45410	40930	51820	73610	303000	599800	394700	115600	39610	46280

CAL YR 1979 TOTAL 889143 MEAN 2436 MAX 19400 MIN 210 CFSM 2.06 IN 28.03 AC-FT 1764000
WTR YR 1980 TOTAL 886965 MEAN 2423 MAX 14200 MIN 210 CFSM 2.05 IN 27.96 AC-FT 1759000

13337000 LOCHSA RIVER NEAR LOWELL, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.
REMARKS.--Miscellaneous chemical data published for water years 1973 and 1977.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT
OCT												
06...	1545	206	48	--	22.0	13.0	--	--	--	--	--	--
NOV												
10...	1400	378	44	--	14.5	3.0	--	--	--	--	--	--
20...	1130	447	38	7.3	5.0	3.0	13	0	4.2	.7	2.1	29
JAN												
02...	1210	556	39	--	8.0	1.0	--	--	--	--	--	--
FEB												
09...	1200	629	38	--	19.0	1.0	--	--	--	--	--	--
APR												
05...	1315	932	39	--	16.5	7.5	--	--	--	--	--	--
JUN												
26...	0845	3980	21	7.1	14.0	13.5	7	0	2.5	.3	1.3	26

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT												
06...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
10...	--	--	--	--	--	--	--	--	--	--	--	--
20...	.2	.7	15	5.8	.5	.0	12	35	.05	42.2	.03	.000
JAN												
02...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
05...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
26...	.2	.4	12	.8	.1	.1	9.4	23	.03	247	.15	.000

13338500 SOUTH FORK CLEARWATER RIVER AT STITES, ID

LOCATION.--Lat 46°05'12", long 115°58'32", in NE¼SE¼NE¼ sec.29, T.32 N., R.4 E., Idaho County, Hydrologic Unit 17060305, on left bank at Stites, 0.4 mi (0.6 km) upstream from county road bridge, 0.4 mi (0.6 km) downstream from Cottonwood Creek, and at mile 4.0 (6.4 km).

DRAINAGE AREA.--1,150 mi² (2,980 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1910 to April 1912, October 1964 to current year. Published as "at Kooskia" 1910-12.

REVISED RECORDS.--WSP 1317: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 1,300 ft (396 m), from topographic map. October 1910 to April 1912, nonrecording gage 3.6 mi (5.8 km) downstream at different datum.

REMARKS.--Records good. No regulation above station.

AVERAGE DISCHARGE.--17 years (1911, 1965-80), 1,102 ft³/s (31.2 m³/s), 13.01 in/yr (330 mm/yr), 798,400 acre-ft/yr (984 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 10,700 ft³/s (303 m³/s) May 29, 1912, gage height, 6.00 ft (1.829 m), site and datum then in use; minimum, 72 ft³/s (2.04 m³/s) Nov. 28, 1976, gage height, 2.41 ft (0.735 m); minimum gage height, 2.40 ft (0.732 m) Dec. 18, 1965 (ice affected).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 8, 1964, reached a stage of 10.3 ft (3.14 m), present site and datum, discharge, 17,500 ft³/s (496 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 3,300 ft³/s (93.5 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 29	1715	3430	97.1	5.33	1.625	June 2	0830	4540	129	5.85	1.783
May 3	0130	4040	114	5.62	1.713	June 15	0730	4300	122	5.73	1.746
May 25	2030	*7080	201	6.91	2.106						

Minimum discharge, 84 ft³/s (2.38 m³/s) Nov. 14, gage height, 2.53 ft (0.771 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 30 to Dec. 1, Jan. 8-11)

2.5	74	4.0	1190
2.6	107	4.5	1880
2.8	191	5.5	3700
3.1	360	7.0	7210
3.5	670		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	127	240	140	260	298	769	457	2360	3080	1370	453	266
2	127	220	244	255	392	672	446	2600	4250	1710	431	277
3	123	210	283	233	416	630	430	3550	3720	2830	409	368
4	123	220	300	228	412	807	426	3020	3540	2870	395	336
5	119	230	355	233	333	884	441	2860	3420	2400	388	271
6	119	225	324	240	311	934	542	3000	3670	2330	375	249
7	123	217	294	200	328	812	564	2930	3370	2040	361	238
8	123	197	318	190	322	716	506	2590	3030	1850	348	222
9	123	182	318	185	295	654	508	2950	2860	1790	336	217
10	123	182	318	180	271	589	618	2690	2870	1670	324	212
11	123	168	283	175	261	645	635	2340	2770	1500	318	294
12	123	173	212	338	251	602	644	2040	3310	1360	306	381
13	123	123	249	711	249	536	745	1980	3150	1320	294	306
14	123	97	244	707	248	586	1030	1920	2930	1260	288	381
15	147	111	244	699	239	664	1320	1890	3900	1320	283	361
16	283	134	260	520	236	648	1420	1990	3140	1140	277	288
17	249	192	266	455	241	641	1560	1720	2920	1020	271	255
18	233	266	318	391	547	789	2040	1640	2790	946	336	238
19	260	238	324	294	445	933	2360	1590	2600	893	483	355
20	361	207	288	239	508	807	2620	1640	2390	841	355	460
21	324	127	271	294	658	1020	2880	1710	2210	792	312	831
22	283	107	266	300	552	833	2570	1810	2080	734	283	537
23	255	187	244	278	584	712	2960	1940	2090	688	271	402
24	249	228	197	270	487	615	2960	1820	1970	653	255	355
25	300	222	244	267	441	536	2800	3740	1700	610	244	324
26	360	217	255	233	434	495	2660	5350	1620	586	238	288
27	340	207	233	187	473	512	2770	3870	2160	553	233	277
28	320	173	169	130	883	484	2810	3600	1700	529	233	260
29	300	119	138	116	1010	448	3240	3460	1460	498	233	249
30	280	105	169	141	---	473	2800	3150	1380	475	228	238
31	260	---	202	208	---	477	---	3060	---	460	228	---
TOTAL	6526	5524	7970	9157	12125	20923	47762	80810	82080	39038	9789	9736
MEAN	211	184	257	295	418	675	1592	2607	2736	1259	316	325
MAX	361	266	355	711	1010	1020	3240	5350	4250	2870	483	831
MIN	119	97	138	116	236	448	426	1590	1380	460	228	212
CFSM	.18	.16	.22	.26	.36	.59	1.38	2.27	2.38	1.10	.28	.28
IN.	.21	.18	.26	.30	.39	.68	1.54	2.61	2.66	1.26	.32	.31
AC-FT	12940	10960	15810	18160	24050	41500	94740	160300	162800	77430	19420	19310

CAL YR 1979 TOTAL 335037 MEAN 918 MAX 7180 MIN 97 CFSM .80 IN 10.84 AC-FT 664500
WTR YR 1980 TOTAL 331440 MEAN 906 MAX 5350 MIN 97 CFSM .79 IN 10.72 AC-FT 657400

13338500 SOUTH FORK CLEARWATER RIVER AT STITES, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.
REMARKS.--Miscellaneous chemical data published for water year 1977.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT
OCT												
07...	1330	120	74	--	19.0	13.5	--	--	--	--	--	--
NOV												
11...	0935	170	84	--	9.0	4.0	--	--	--	--	--	--
20...	1330	192	100	8.4	7.0	3.5	33	0	8.5	2.8	7.2	40
JAN												
03...	1405	247	92	--	6.5	2.5	--	--	--	--	--	--
FEB												
10...	1010	249	120	--	4.5	1.0	--	--	--	--	--	--
APR												
05...	1610	438	96	--	12.5	9.5	--	--	--	--	--	--
JUN												
26...	1315	1510	46	7.4	17.3	14.9	9	0	2.7	.6	2.1	31

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT												
07...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
11...	--	--	--	--	--	--	--	--	--	--	--	--
20...	.5	1.5	41	5.5	1.8	.1	17	70	.10	37.0	.27	.040
JAN												
03...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
10...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
05...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
26...	.3	.7	15	2.5	.3	.1	15	34	.05	139	.13	.020

13339500 LOLO CREEK NEAR GREER, ID

LOCATION.--Lat 46°22'20", long 116°09'40", in NE¼SE¼SE¼ sec.14, T.35 N., R.2 E., Idaho County, Hydrologic Unit 17060306, on left bank upstream side of county road bridge 2,000 ft (610 m) upstream from mouth, 1.35 mi (2.17 km) southeast of Greer, and 8.5 mi (13.7 km) southeast of Orofino.

DRAINAGE AREA.--243 mi² (629 km²).

PERIOD OF RECORD.--October 1, 1979, to current year. December 1911 to December 1912, published in WSP 332. Partial-record station 1928, 1929, and 1964. Published in Miscellaneous Streamflow Measurements in Idaho, 1894-1967.

GAGE.--Water-stage recorder. Altitude of gage 1,120 ft (341 m), from topographic map.

REMARKS.--Records fair except those for February which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 3,920 ft³/s (111 m³/s) May 26, 1980, gage height 16.14 ft (4.919 m). Minimum, 18 ft³/s (0.510 m³/s) Nov. 14, 30, 1980, gage height 7.45 ft (2.271 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,200 ft³/s (34.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 26	1045	*3920	111	*16.14	4.919	June 2	1315	1520	43.0	12.67	3.862

Minimum discharge, 18 ft³/s (0.510 m³/s) Nov. 14, 30, gage height, 7.45 ft (2.271 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Aug. 7 to Sept. 30; stage-discharge relation affected by ice Jan. 6 to Feb. 24)

Gage height	Discharge	Gage height	Discharge
7.5	20	9.5	305
7.7	33	10.5	585
8.0	57	11.5	970
8.4	99	13.0	1700
8.9	178	15.5	3390

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	74	32	100	180	806	282	843	988	279	89	63
2	52	66	40	120	220	706	269	839	1380	283	88	83
3	51	59	91	127	270	641	280	804	1250	334	85	150
4	50	58	186	100	320	988	320	777	1000	312	84	97
5	49	58	335	140	260	1090	360	750	925	290	83	78
6	49	62	243	169	230	850	641	746	1040	268	80	71
7	49	62	197	135	210	702	638	735	971	241	77	67
8	48	57	237	110	190	596	535	667	839	221	75	65
9	48	53	211	100	180	535	529	649	738	205	72	63
10	47	51	209	98	170	490	726	656	660	192	68	60
11	47	49	173	105	165	568	734	617	582	188	67	58
12	47	48	133	170	162	554	734	543	579	173	64	60
13	47	36	130	280	160	490	762	493	667	171	62	60
14	49	26	120	350	150	475	846	435	527	179	60	72
15	51	46	112	400	145	454	1010	411	863	243	57	77
16	62	62	118	300	145	402	950	457	784	199	55	67
17	72	65	122	270	155	365	934	416	653	166	53	65
18	85	127	243	230	180	360	997	387	557	150	88	60
19	130	111	221	190	230	355	1020	364	487	143	146	74
20	120	76	178	170	330	355	1090	349	438	138	91	112
21	100	54	157	210	430	378	1110	349	398	132	78	146
22	92	40	153	190	400	375	967	349	359	129	71	119
23	98	66	115	180	375	362	988	400	518	126	67	96
24	115	70	121	175	352	342	1050	455	455	119	64	88
25	86	68	133	150	358	302	971	827	377	116	61	82
26	145	65	124	110	355	292	912	3380	341	112	58	77
27	127	62	102	95	422	295	904	1880	472	106	55	74
28	97	35	76	85	624	265	937	1300	398	102	54	71
29	102	26	53	88	930	260	988	1130	341	98	53	67
30	106	29	74	92	---	282	933	983	304	94	49	65
31	89	---	84	105	---	271	---	946	---	92	50	---
TOTAL	2362	1765	4523	5144	8298	15206	23417	23937	19891	5601	2204	2387
MEAN	76.2	58.8	146	166	286	491	781	772	663	181	71.1	79.6
MAX	145	127	335	400	930	1090	1110	3380	1380	334	146	150
MIN	47	26	32	85	145	260	269	349	304	92	49	58
AC-FT	4690	3500	8970	10200	16460	30160	46450	47480	39450	11110	4370	4730

WTR YR 1980 TOTAL 114735 MEAN 313 MAX 3380 MIN 26 AC-FT 227600

NOTE.--No gage-height record Jan. 6 to Feb. 24.

13340000 CLEARWATER RIVER AT OROFINO, ID

LOCATION.--Lat 46°28'43", long 116°15'23", in SW¼SE¼NW¼ sec.7, T.36 N., R.2 E., Clearwater County, Hydrologic Unit 17060306, on right bank 56 ft (17 m) upstream from State Highway 7 bridge at Orofino and at mile 44.6 (71.8 km).

DRAINAGE AREA.--5,580 mi² (14,450 km²), approximately.

PERIOD OF RECORD.--October 1930 to September 1938, October 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 990.80 ft (301.996 m) National Geodetic Vertical Datum of 1929 (levels by Idaho Department of Highways). Prior to Sept. 30, 1938, nonrecording gage at site 0.1 mi (0.2 km) downstream at different datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--24 years, 8,939 ft³/s (253.2 m³/s), 21.75 in/yr (552 mm/yr), 6,476,000 acre-ft/yr (7,985 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 87,300 ft³/s (2,470 m³/s) June 2, 1972, gage height, 18.84 ft (5.742 m), present datum; minimum observed, probably less than 250 ft³/s (7.08 m³/s) Jan. 8, 1937, during period of ice effect; minimum gage height, 1.96 ft (0.597 m) Nov. 30, 1979.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 8, 1964, reached a stage of 20.32 ft (6.194 m) present site and datum, discharge, 99,700 ft³/s (2,820 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 30,000 ft³/s (850 m³/s) and maximum (*):

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft³/s)	(m³/s)	(ft)	(m)	Date	Time	(ft³/s)	(m³/s)	(ft)	(m)
Apr. 29	1300	38400	1090	12.05	3.673	May 26	0815	*40200	1140	12.35	3.764
May 6	1045	38800	1100	12.11	3.691						

Minimum discharge, 617 ft³/s (17.5 m³/s) Nov. 30, gage height, 1.96 ft (0.597 m)

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Jan. 10-11, Jan. 29 to Feb. 1)

2.0	655	6.5	10900
2.5	1190	8.0	16800
3.0	1900	10.0	26600
4.0	3760	14.0	51700
5.0	6180	15.0	58700

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	975	1580	998	1680	1500	7280	3490	26800	23200	10400	2990	1730
2	968	1460	1680	2010	2240	6460	3420	28700	28700	10700	2960	1930
3	959	1370	2270	2040	2580	6030	3400	34600	26700	13100	2830	2480
4	942	1330	3080	1960	3480	7760	3540	35500	24700	14400	2750	2580
5	932	1440	4200	1970	3100	8750	3690	35000	23500	12700	2700	2060
6	928	1470	3540	2190	2660	7670	4610	36900	23800	11600	2590	1780
7	928	1470	2850	1830	2510	6790	5140	34800	23200	10700	2480	1670
8	922	1410	2970	1760	2460	6090	4690	32100	21500	9750	2400	1620
9	905	1320	2720	1570	2340	5670	4590	32300	22200	9270	2320	1570
10	905	1260	2780	1450	2160	5260	5680	29900	24700	8850	2240	1530
11	905	1250	3180	1450	2120	5550	6060	26300	26200	8250	2170	1580
12	905	1240	2470	1770	2070	5580	6030	23400	27600	7560	2110	2630
13	905	1190	2280	3120	2050	5100	6450	21900	27100	7250	2060	2390
14	905	1040	2170	5160	1940	5050	7750	21500	24100	7210	1980	2390
15	930	859	2100	6340	1810	5320	10100	21400	28900	7800	1930	2380
16	1110	862	2340	5440	1800	4970	10900	22800	25800	7450	1880	1950
17	1380	1120	2340	4520	1900	4730	11100	20400	24400	6550	1850	1760
18	1380	1910	2810	3910	2550	4710	13700	19800	24100	6010	2040	1680
19	1570	2200	2910	3080	4120	4900	16900	20500	22800	5640	2930	1870
20	2600	1770	2570	2140	5760	4820	19500	24000	21100	5310	2540	3360
21	2380	1430	2400	2190	6400	4840	23500	29000	19400	5030	2180	6110
22	1920	1100	2340	2600	5600	4810	23500	31500	18100	4770	2010	5670
23	1700	1100	2230	2480	4990	4540	26900	31800	17200	4510	1880	4160
24	1810	1270	1990	2350	4420	4310	30700	25700	15900	4260	1800	3650
25	1900	1660	2020	2350	4080	4020	29800	24300	14000	4060	1730	3450
26	2100	1550	2110	1840	3980	3790	27700	37300	13000	3860	1660	3080
27	2460	1450	2020	1060	4330	3750	30100	29500	14400	3690	1620	2790
28	2150	1280	1790	958	5460	3670	32700	25800	13200	3520	1600	2580
29	1970	839	1560	900	8310	3500	36500	25000	11400	3380	1610	2410
30	1900	740	1380	930	---	3640	32100	23600	10600	3210	1580	2270
31	1720	---	1310	1080	---	3630	---	23100	---	3060	1580	---
TOTAL	43964	39970	73408	74128	98720	163010	444240	855200	641500	223850	67000	77110
MEAN	1418	1332	2368	2391	3404	5258	14810	27590	21380	7221	2161	2570
MAX	2600	2200	4200	6340	8310	8750	36500	37300	28900	14400	2990	6110
MIN	905	740	998	900	1500	3500	3400	19800	10600	3060	1580	1530
CFSM	.25	.24	.42	.43	.61	.94	2.65	4.94	3.83	1.29	.39	.46
IN.	.29	.27	.49	.49	.66	1.09	2.96	5.70	4.28	1.49	.45	.51
AC-FT	87200	79280	145600	147000	195800	323300	881100	1696000	1272000	444000	132900	152900

CAL YR 1979 TOTAL 2872136 MEAN 7869 MAX 52000 MIN 740 CFSM 1.41 IN 19.15 AC-FT 5697000
WTR YR 1980 TOTAL 2802100 MEAN 7656 MAX 37300 MIN 740 CFSM 1.37 IN 18.68 AC-FT 5558000

13340600 NORTH FORK CLEARWATER RIVER NEAR CANYON RANGER STATION, ID

LOCATION.--Lat 46°50'26", long 115°37'11", in SE¼SE¼NE¼ sec.6, T.40 N., R.7 E., Clearwater County, Hydrologic Unit 17060307, Clearwater National Forest, on left bank immediately upstream from forest road bridge, 0.1 mi (0.2 km) upstream from Beaver Creek, 1.7 mi (2.7 km) downstream from Canyon ranger station, and at mile 58.0 (93.3 km).

DRAINAGE AREA.--1,360 mi² (3,520 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,660.00 ft (505.968 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. No regulation or diversion above station.

AVERAGE DISCHARGE.--13 years (1968-80), 3,647 ft³/s (103 m³/s), 36.42 in/yr (925 mm/yr), 2,642,000 acre-ft/yr (3,258 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,300 ft³/s (915 m³/s) June 16, 1974, gage height, 16.6 ft (5.060 m); maximum gage height, 17.04 ft (5.194 m) June 1, 1972; minimum, 200 ft³/s (5.66 m³/s) Dec. 5, 1972, gage height, 5.00 ft (1.524 m).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 12,000 ft³/s (340 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 29	0345	*15300	433	12.81	3.904						

Minimum discharge, 278 ft³/s (7.87 m³/s) Nov. 29, gage height, 5.03 ft (1.533 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Jan. 28 to Feb. 2)

5.1	310	8.0	3460
5.5	545	10.0	7450
6.0	930	12.0	12900
6.5	1430	15.0	23400
7.0	2000		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	620	802	802	1080	1000	2790	1550	11000	8300	2970	1360	1240
2	605	771	1200	1120	1500	2670	1550	11600	9140	2920	1310	1520
3	598	740	2140	1070	2000	2600	1590	12300	8170	3740	1320	1730
4	590	771	2490	881	2330	2940	1700	12500	7660	3200	1330	1220
5	590	755	2830	931	1910	2750	1830	12700	7400	3040	1270	1070
6	583	771	1710	987	1490	2510	2380	13100	7610	2840	1230	1010
7	583	740	1620	823	1290	2300	2260	12100	7200	2650	1210	1000
8	583	710	1540	813	1200	2140	2040	11300	6950	2530	1180	971
9	575	687	1470	757	1140	2030	2110	11000	7110	2470	1160	938
10	575	687	2250	807	1130	2000	2410	10300	7250	2640	1130	922
11	583	672	1760	824	1080	2140	2320	9000	7540	2490	1110	933
12	590	650	1450	915	1070	2070	2640	8200	7810	2290	1100	948
13	590	496	1290	1690	1050	1990	3240	7900	7120	2430	1070	1040
14	590	410	1220	2340	1050	2050	4280	7850	6350	2480	1050	1340
15	642	443	1390	2570	1040	2050	5470	7860	6960	2750	1030	1040
16	786	483	1470	2020	1010	1870	5230	7900	6120	2360	1020	958
17	771	898	1340	1790	999	1740	5790	7060	5820	2180	1010	923
18	818	1340	1800	1580	1200	1760	7280	6840	5530	2080	1540	893
19	1390	927	1610	1210	2140	1670	8620	7050	5210	2010	1520	1180
20	1510	773	1470	1060	2560	1650	9940	7970	4880	1940	1170	1720
21	1120	575	1400	1360	2530	1680	11100	9270	4630	1870	1100	1890
22	950	385	1380	1420	2200	1720	11200	10300	4360	1810	1040	1440
23	1090	568	1190	1350	1990	1760	12200	9380	4530	1760	1000	1230
24	1180	856	1110	1350	1800	1700	13700	7880	4040	1690	980	1160
25	1100	715	1200	1180	1730	1620	12100	8170	3740	1640	953	1080
26	1780	678	1160	801	1730	1640	11800	9970	3580	1610	932	1020
27	1240	644	1080	678	1880	1650	12700	8690	4290	1560	927	973
28	1080	503	961	600	2300	1580	13700	8180	3750	1510	944	945
29	1030	325	737	590	2850	1590	14600	7840	3370	1460	928	909
30	924	503	640	600	---	1630	12300	7530	3150	1390	908	886
31	850	---	803	620	---	1560	---	7430	---	1350	925	---
TOTAL	26516	20278	44513	35817	47199	61850	199630	290170	179570	69660	34757	34129
MEAN	855	676	1436	1155	1628	1995	6654	9360	5986	2247	1121	1138
MAX	1780	1340	2830	2570	2850	2940	14600	13100	9140	3740	1540	1890
MIN	575	325	640	590	999	1560	1550	6840	3150	1350	908	886
CFSM	.63	.50	1.06	.85	1.20	1.47	4.89	6.88	4.40	1.65	.82	.84
IN.	.73	.55	1.22	.98	1.29	1.69	5.46	7.94	4.91	1.91	.95	.93
AC-FT	52590	40220	88290	71040	93620	122700	396000	575600	356200	138200	68940	67690

CAL YR 1979 TOTAL 1135616 MEAN 3111 MAX 19700 MIN 325 CFSM 2.29 IN 31.06 AC-FT 2252000
WTR YR 1980 TOTAL 1044089 MEAN 2853 MAX 14600 MIN 325 CFSM 2.10 IN 28.56 AC-FT 2071000

13340600 NORTH FORK CLEARWATER RIVER NEAR CANYON RANGER STATION, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970 to current year.
PERIOD OF DAILY RECORD.--
  WATER TEMPERATURES: February 1970 to current year.
INSTRUMENTATION.--Temperature recorder since February 1970.
COOPERATION.--Temperature record furnished by U.S. Corps of Engineers and reviewed by U.S. Geological Survey.
EXTREMES FOR PERIOD OF DAILY RECORD.--
  WATER TEMPERATURES: Maximum, 23.0°C Aug. 4, 5, 1971; minimum, 0.0°C on many days during winter periods.
EXTREMES FOR CURRENT YEAR.--
  WATER TEMPERATURES: Maximum, 21.5°C July 23-24; minimum, 0.0°C on many days during winter months.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	11.5	11.0	5.0	4.0	.0	.0	.5	.5	.0	.0	3.0	3.0
2	11.0	10.0	4.0	3.5	.0	.0	1.0	.5	.0	.0	3.5	2.5
3	10.0	9.0	4.0	3.0	.5	.0	1.0	1.0	.0	.0	4.0	3.0
4	9.5	9.0	4.0	3.0	1.0	.5	1.0	.0	.0	.0	4.0	3.0
5	9.5	8.5	4.5	3.5	1.0	.0	.0	.0	.0	.0	3.0	2.0
6	9.5	9.0	5.0	4.5	1.5	1.0	.0	.0	.0	.0	3.0	2.5
7	10.5	9.0	5.5	4.5	2.0	1.5	.0	.0	.0	.0	3.0	2.5
8	10.5	9.5	5.0	4.5	3.0	2.0	.0	.0	.0	.0	3.0	2.5
9	10.0	9.0	4.5	4.0	3.5	3.0	.0	.0	.0	.0	3.0	2.0
10	9.5	8.5	4.0	3.5	3.5	2.0	.0	.0	.5	.0	4.5	3.0
11	9.0	8.5	3.5	3.0	2.0	.5	.0	.0	.5	.0	4.5	4.0
12	9.0	8.0	3.0	2.0	.5	.0	.0	.0	.5	.0	4.0	3.5
13	9.0	8.5	2.0	1.0	.5	.5	.0	.0	.5	.0	3.0	2.5
14	9.5	8.5	.5	.0	1.0	.5	.0	.0	.0	.0	3.0	2.5
15	10.5	9.0	.0	.0	1.0	1.0	.5	.0	.0	.0	2.5	2.0
16	11.0	10.0	.5	.0	1.5	1.0	.5	.0	.5	.0	2.5	2.0
17	10.5	9.5	1.0	.5	2.0	1.5	1.0	.5	.5	.0	2.5	2.0
18	10.0	8.5	1.5	1.0	2.5	2.0	1.0	.0	.5	.5	2.5	1.5
19	8.5	7.0	1.5	1.0	2.5	2.5	.0	.0	.5	.5	4.0	2.5
20	7.0	6.5	1.5	1.0	3.0	2.5	.0	.0	1.0	.5	5.0	3.0
21	6.5	5.5	1.0	.0	3.0	2.5	.0	.0	1.5	1.0	5.5	4.0
22	6.0	5.5	.5	.0	3.0	3.0	.0	.0	1.5	1.0	5.5	4.5
23	6.5	6.0	.0	.0	2.5	1.5	.0	.0	1.5	1.0	5.5	4.5
24	7.5	6.5	.5	.0	1.5	1.0	.0	.0	1.5	.5	4.5	4.0
25	8.0	7.5	.5	.0	1.0	.5	.0	.0	1.5	1.0	4.5	3.0
26	8.0	8.0	.5	.5	1.5	1.0	.0	.0	1.5	1.0	4.5	2.5
27	8.0	7.5	.5	.0	2.0	1.5	.0	.0	2.5	1.5	4.5	3.0
28	7.5	7.0	.5	.0	2.0	1.5	.0	.0	2.5	2.0	5.0	3.5
29	7.0	6.5	.0	.0	1.5	.0	.0	.0	3.0	2.5	5.0	4.0
30	6.5	5.5	.5	.0	.5	.0	.0	.0	---	---	5.0	4.0
31	6.0	5.0	---	---	.5	.0	.0	.0	---	---	5.5	3.5
MONTH	11.5	5.0	5.5	.0	3.5	.0	1.0	.0	3.0	.0	5.5	1.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	5.0	3.5	8.5	6.5	10.0	8.5	16.0	14.5	19.5	17.5	14.5	13.0
2	5.5	3.5	8.5	7.0	9.0	8.0	16.0	15.0	19.5	17.0	14.5	13.5
3	6.0	4.0	9.0	7.5	8.5	7.5	15.5	15.0	19.5	17.0	14.5	13.0
4	6.0	4.0	9.0	7.0	9.0	8.5	15.0	15.0	17.5	15.5	14.5	12.5
5	6.0	4.5	9.0	7.0	9.5	8.5	15.5	14.0	17.0	15.0	15.0	13.5
6	6.0	5.0	9.5	7.0	9.5	8.5	16.5	14.5	17.5	15.0	15.5	14.5
7	5.0	4.0	7.5	7.0	9.5	8.5	17.5	16.0	17.5	15.0	15.5	15.0
8	5.0	3.5	9.0	7.0	11.5	9.5	18.0	16.5	18.0	15.5	16.0	15.0
9	5.0	4.0	9.0	7.0	12.0	11.5	18.0	17.0	18.5	16.5	16.0	15.5
10	5.0	4.0	7.5	7.0	12.5	11.5	17.5	16.0	19.0	16.5	16.5	15.5
11	7.0	5.0	8.5	6.5	13.0	12.5	16.5	15.0	19.0	17.0	17.0	16.5
12	7.5	5.5	8.5	8.0	13.0	9.5	17.0	16.0	19.0	17.5	17.0	16.0
13	7.0	6.0	9.0	8.0	10.0	9.0	16.0	15.5	19.5	17.5	16.5	15.5
14	7.0	6.0	9.5	8.0	10.0	9.5	15.5	14.0	19.5	18.0	16.0	15.0
15	6.5	5.5	10.0	8.0	10.5	10.0	14.5	13.0	19.5	18.0	16.0	15.0
16	6.5	5.0	7.5	6.0	13.0	10.5	16.5	14.0	19.5	18.0	15.5	14.5
17	7.0	5.5	7.5	6.5	13.5	12.5	17.5	15.5	19.0	17.5	15.0	14.0
18	7.0	6.0	9.5	7.5	14.5	12.5	17.5	16.0	[illegible]	16.0	15.0	13.0
19	7.5	6.0	10.0	9.5	15.5	14.0	16.5	15.0	16.0	14.0	13.5	12.5
20	7.5	6.0	10.5	9.0	15.0	14.0	18.5	15.5	15.0	13.0	12.5	12.0
21	7.5	5.5	11.0	10.0	15.5	13.5	19.0	16.0	16.0	13.5	12.0	11.0
22	7.5	6.5	11.5	8.0	15.5	14.5	20.5	17.5	16.5	14.5	11.0	10.0
23	8.0	6.0	8.0	5.5	14.0	13.0	21.5	19.0	16.5	15.5	11.5	10.5
24	7.5	5.5	6.0	5.5	13.0	11.5	21.5	19.0	17.0	15.5	11.5	11.0
25	7.5	5.5	6.5	6.0	13.5	12.5	21.0	18.5	16.5	15.5	11.5	10.5
26	8.0	6.5	6.5	5.5	13.5	12.5	21.0	18.5	16.5	15.0	12.0	10.5
27	8.5	6.5	8.0	6.5	12.5	10.5	21.0	18.5	16.5	15.0	12.0	11.0
28	8.5	6.5	9.0	8.0	12.5	10.0	21.0	18.0	15.0	14.0	12.5	12.0
29	8.5	6.0	9.0	9.0	15.0	12.5	21.0	18.5	14.0	12.5	12.5	12.0
30	7.0	5.5	9.0	9.0	15.5	14.5	20.5	18.0	14.0	12.5	12.5	12.0
31	---	---	10.0	9.0	---	---	20.0	17.5	14.0	13.5	---	---
MONTH	8.5	3.5	11.5	5.5	15.5	7.5	21.5	13.0	19.5	12.5	17.0	10.0
YEAR	21.5	.0										

13340950 DWORSHAK RESERVOIR NEAR AHSAHKA, ID

LOCATION.--Lat 46°31'00", long 116°17'30", in SW¼SE¼ sec.26, T.37 N., R.1 E., Nez Perce County, Hydrologic Unit 17060308, at Dam, 1.5 mi (2.4 km) northeast of Ahsahka, and at mile 2.0 (3.2 km).

DRAINAGE AREA.--2,440 mi² (6,320 km²), approximately. Mean altitude, 4,220 ft (1,286 m).

PERIOD OF RECORD.--October 1971 to current year.

GAGE.--Water-stage recorder, located in gate slot 6, on the 1,603 ft (488.6 m) level. Datum of gage is at mean sea level (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by straight-axis concrete gravity dam. Total capacity is 3,459,000 acre-ft (4,265 hm³) between elevations 970.0 ft (295.66 m), bottom of bypass valve, and 1,599.5 ft (487.53 m), maximum pool elevation. Inactive storage for minimum power head is 1,452,000 acre-ft (1,790 hm³), elevation, 1,445.0 ft (440.44 m). Storage began Sept. 27, 1971. Dworshak Dam is used to regulate annual floodwaters of the North Fork Clearwater River and for power generation.

COOPERATION.--Gage-height record and capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 3,472,000 acre-ft (4,280 hm³) Aug. 16, 1978, elevation, 1,600.21 ft (487.744 m); minimum since full capacity was attained July 29, 1974, 1,455,000 acre-ft (1,794 hm³) Mar. 29, 30, 1976, elevation, 1,445.36 ft (440.546 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 3,470,000 acre-ft (4,279 hm³) June 6, elevation, 1,600.09 ft (487.707 m); minimum, 2,162,000 acre-ft (2,666 hm³) Feb. 15, elevation, 1,513.95 ft (461.452 m).

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3146000	3058000	2792000	2484000	2200000	2269000	2389000	2868000	3469000	3460000	3456000	3387000
2	3141000	3055000	2775000	2485000	2202000	2279000	2383000	2896000	3467000	3461000	3457000	3380000
3	3137000	3053000	2761000	2487000	2205000	2289000	2376000	2933000	3469000	3463000	3459000	3371000
4	3131000	3051000	2749000	2488000	2195000	2302000	2372000	2969000	3468000	3464000	3453000	3362000
5	3126000	3048000	2739000	2489000	2198000	2312000	2377000	3003000	3468000	3464000	3451000	3350000
6	3124000	3046000	2723000	2490000	2196000	2321000	2386000	3042000	3467000	3464000	3449000	3335000
7	3122000	3044000	2707000	2477000	2194000	2329000	2383000	3078000	3468000	3462000	3448000	3329000
8	3119000	3041000	2690000	2458000	2191000	2336000	2379000	3112000	3468000	3460000	3445000	3316000
9	3116000	3038000	2673000	2439000	2193000	2343000	2376000	3144000	3468000	3457000	3446000	3301000
10	3114000	3036000	2659000	2420000	2195000	2348000	2384000	3175000	3468000	3458000	3448000	3286000
11	3111000	3033000	2644000	2404000	2189000	2357000	2393000	3202000	3465000	3458000	3442000	3272000
12	3109000	3030000	2627000	2404000	2186000	2364000	2402000	3227000	3466000	3463000	3436000	3254000
13	3106000	3028000	2610000	2408000	2184000	2371000	2413000	3251000	3465000	3465000	3428000	3242000
14	3104000	3025000	2592000	2402000	2175000	2379000	2428000	3272000	3466000	3464000	3420000	3234000
15	3103000	3022000	2576000	2396000	2162000	2387000	2446000	3288000	3467000	3465000	3412000	3225000
16	3100000	3019000	2560000	2387000	2163000	2393000	2460000	3300000	3463000	3464000	3413000	3214000
17	3099000	3018000	2545000	2379000	2165000	2399000	2463000	3320000	3461000	3462000	3414000	3202000
18	3097000	3019000	2530000	2369000	2168000	2404000	2499000	3339000	3458000	3459000	3411000	3196000
19	3097000	3015000	2514000	2371000	2176000	2410000	2524000	3360000	3455000	3463000	3407000	3193000
20	3095000	2996000	2498000	2372000	2189000	2414000	2554000	3371000	3450000	3465000	3401000	3138000
21	3091000	2977000	2481000	2361000	2199000	2409000	2588000	3386000	3447000	3462000	3394000	3200000
22	3088000	2957000	2484000	2349000	2207000	2414000	2623000	3402000	3451000	3459000	3386000	3192000
23	3086000	2939000	2486000	2337000	2213000	2420000	2650000	3409000	3456000	3460000	3387000	3181000
24	3083000	2920000	2487000	2324000	2219000	2415000	2684000	3412000	3455000	3460000	3388000	3170000
25	3081000	2902000	2489000	2313000	2223000	2409000	2708000	3420000	3451000	3462000	3382000	3159000
26	3079000	2883000	2483000	2310000	2228000	2404000	2735000	3436000	3448000	3464000	3383000	3148000
27	3074000	2867000	2485000	2290000	2235000	2398000	2763000	3444000	3453000	3466000	3384000	3146000
28	3069000	2851000	2480000	2270000	2245000	2392000	2794000	3450000	3463000	3462000	3383000	3144000
29	3066000	2831000	2481000	2251000	2258000	2396000	2823000	3455000	3463000	3455000	3384000	3142000
30	3063000	2811000	2482000	2231000	---	2401000	2848000	3459000	3462000	3456000	3384000	3139000
31	3060000	---	2482000	2213000	---	2395000	---	3462000	---	3456000	3385000	---
MAX	3146000	3058000	2792000	2490000	2258000	2420000	2848000	3462000	3469000	3466000	3459000	3387000
MIN	3060000	2811000	2480000	2213000	2162000	2269000	2372000	2868000	3447000	3455000	3382000	3138000
(†)	1576.71	1561.12	1538.54	1518.07	1521.61	1532.13	1563.53	1599.66	1599.64	1599.34	1595.47	1581.41
(‡)	-92000	-249000	-329000	-269000	+45000	+137000	+453000	+614000	0	-6000	-71000	-246000

CAL YR 1979............ ‡ +259000
WTR YR 1980............ ‡ -13000

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

13341050 CLEARWATER RIVER NEAR PECK, ID

LOCATION.--Lat 46°30'00", long 116°23'30", in NE¼NE¼ sec.1, T.36 N., R.1 W., Nez Perce County, Hydrologic Unit 17060306, on left bank 2 mi (3.2 km) upstream from Big Canyon Creek, 2.2 mi (3.5 km) northeast of Peck, 3 mi (4.8 km) downstream from North Fork Clearwater River, and at mile 37.4 (60.2 km).

DRAINAGE AREA.--8,040 mi^2 (20,800 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 930 ft (283 m), from topographic map.

REMARKS.--Records good. Flow regulated by Dworshak Reservoir beginning September 1971.

AVERAGE DISCHARGE.--16 years, 15,410 ft^3/s (436 m^3/s), 11,160,000 acre-ft/yr (13,760 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 127,200 ft^3/s (3,600 m^3/s) June 16, 1974, gage height, 23.66 ft (7.212 m); maximum gage height, 25.00 ft (7.620 m) Dec. 28, 1967 (ice jam); minimum discharge, 1,260 ft^3/s (35.7 m^3/s) Oct. 31, 1971, gage height, 2.24 ft (0.683 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 8, 1964, reached a stage of 23.95 ft (7.300 m), from floodmark, discharge, 118,000 ft^3/s (3,340 m^3/s), from rating extended above 89,100 ft^3/s (2,520 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 50,000 ft^3/s (1,416 m^3/s) May 26, gage height, 14.61 ft (4.453 m); minimum, 1,860 ft^3/s (52.7 m^3/s) Oct. 4, 5, gage height, 2.84 ft (0.866 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

2.5	1520	7.0	11200
3.0	2120	9.0	19100
4.0	3650	11.0	28600
5.0	5710	13.0	40100
6.0	8290	17.0	67700

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4110	3800	11000	2750	9800	8430	9390	32600	32800	15300	4780	2810
2	4230	3690	11700	3090	3430	7640	9400	31200	43200	14700	4170	7850
3	4240	3620	12200	3160	3540	7190	9370	34200	37900	16400	4010	8390
4	4240	3580	13000	3110	11000	8770	9340	35400	35700	18800	7450	8600
5	4180	3670	13300	3060	4350	9800	4990	36400	33500	17100	5250	8490
6	3370	3710	13500	3280	6040	8770	5500	36900	36700	15400	5120	10200
7	2510	3690	12900	9600	5830	7910	10800	35000	34000	15100	5040	5220
8	3030	3630	13000	12200	5760	7270	10700	32100	31800	14200	4950	9190
9	3000	3540	12700	12000	3540	6850	10500	32200	32200	13700	3530	9260
10	2900	3520	12900	12100	3360	6920	6640	29900	35100	12700	3410	9080
11	2900	3510	13200	11600	5460	6740	6920	26500	38100	11300	6260	9330
12	2800	3490	12600	2790	5390	6770	6920	23600	38700	8520	6890	11800
13	2800	3420	12300	3970	5370	6310	7220	22100	38000	10400	7060	9480
14	2800	3160	12300	12700	7510	6260	8370	21700	33400	11000	7060	8010
15	2830	2900	12300	13900	9950	6530	10500	24800	38600	11500	6960	7780
16	3110	2870	12600	13100	3110	6180	12600	27600	36800	11300	3060	8050
17	3480	3060	12400	12200	3090	5970	12800	20700	33600	10400	3030	8290
18	3580	3740	13100	11600	4140	5940	13800	19900	33300	9820	6090	5960
19	4170	5440	13200	4350	5900	6160	17300	20600	32100	6670	6860	4330
20	6000	11500	12900	3280	6850	6110	20100	28600	30400	7290	7350	4260
21	5800	11100	12600	9720	7610	10400	24000	33600	26900	8940	6960	6660
22	5060	11000	3720	10300	6820	6260	24300	37200	22500	8220	6780	11400
23	4360	11000	3350	10300	6230	5550	31000	40300	21400	6580	3020	10400
24	4710	11100	3060	10200	5710	9780	34500	34600	22100	6390	2920	9900
25	5170	11400	3110	10200	6410	9660	34900	32400	20600	5650	5360	9780
26	5780	11300	7080	4290	5280	9750	31800	46200	19700	4950	2890	9460
27	6510	9890	3140	11600	5500	9750	33900	38300	17400	4800	2740	5100
28	6010	9190	5320	11400	6480	9660	36900	34400	14100	7210	2710	4890
29	4970	10800	2900	11300	9420	5020	43800	33500	15800	8210	2720	4700
30	4590	10700	2520	11400	---	4720	38000	32100	15600	5180	2700	4790
31	4200	---	2410	11300	---	9340	---	31600	---	4910	2700	---
TOTAL	127440	187020	302310	265850	172880	232410	536260	966200	902000	322640	149820	233460
MEAN	4111	6234	9752	8576	5961	7497	17880	31170	30070	10410	4833	7782
MAX	6510	11500	13500	13900	11000	10400	43800	46200	43200	18800	7450	11800
MIN	2510	2870	2410	2750	3090	4720	4990	19900	14100	4800	2700	2810
AC-FT	252800	371000	599600	527300	342900	461000	1064000	1916000	1789000	640000	297200	463100

CAL YR 1979 TOTAL 4602830 MEAN 12610 MAX 61700 MIN 2410 AC-FT 9130000
WTR YR 1980 TOTAL 4398290 MEAN 12020 MAX 46200 MIN 2410 AC-FT 8724000

13341050 CLEARWATER RIVER NEAR PECK, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.
PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1964 to current year.
INSTRUMENTATION.--Temperature recorder since October 1964.
COOPERATION.--Temperature records furnished by U.S. Corps of Engineers and reviewed by U.S. Geological Survey.
EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 25°C Aug. 1, 2, 1965, July 28, 1968; minimum, 0.0°C on many days during winter periods.
EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 21.0°C July 26-27; minimum, 0.0°C Jan. 14, 26.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	12.5	11.0	9.0	8.5	6.5	6.0	2.5	2.5	3.5	2.0	4.5	4.0
2	12.0	11.0	8.5	8.0	6.0	6.0	2.5	2.5	3.0	1.5	4.5	4.0
3	12.0	10.5	9.0	8.5	6.0	5.5	3.0	2.5	1.5	1.5	4.5	4.0
4	12.0	11.0	8.5	8.0	5.5	5.5	2.5	2.5	3.0	1.0	5.0	4.5
5	12.0	11.0	9.0	8.5	5.5	3.5	2.5	2.5	2.5	1.0	4.5	3.5
6	12.0	11.0	9.0	8.5	4.0	3.5	2.5	1.5	2.5	1.0	3.5	3.0
7	12.5	11.5	9.0	8.5	4.5	4.0	4.0	1.0	2.5	1.0	3.5	3.0
8	12.0	11.5	8.5	8.0	4.5	4.5	4.0	4.0	2.5	1.0	4.0	3.5
9	12.0	11.0	8.0	7.5	5.0	4.5	4.0	4.0	2.5	1.0	4.5	4.0
10	12.0	11.0	8.0	7.5	5.0	4.0	4.0	4.0	1.5	1.0	5.5	4.0
11	12.0	11.0	8.0	7.5	4.0	4.0	4.0	4.0	2.5	1.0	6.0	5.0
12	12.0	11.0	7.5	7.0	4.0	4.0	4.0	2.0	2.5	1.5	5.5	4.5
13	12.0	11.0	7.5	7.0	4.0	4.0	2.0	1.0	2.5	1.5	5.5	4.5
14	12.0	11.0	7.0	6.5	4.5	4.0	3.0	.0	3.0	1.0	5.0	4.5
15	11.5	10.0	7.0	6.5	4.5	4.5	3.0	1.0	3.0	2.5	4.5	3.5
16	10.5	9.5	7.0	6.5	4.5	4.5	3.5	2.0	2.5	1.0	4.5	3.5
17	10.5	10.0	7.0	6.5	4.5	4.5	3.5	2.0	2.0	1.5	4.5	4.0
18	10.5	9.0	6.5	5.0	4.5	4.5	3.5	2.5	3.0	2.0	5.0	4.0
19	11.0	10.0	6.5	5.0	4.5	4.5	3.5	1.5	3.0	2.0	5.0	4.0
20	10.5	10.0	7.0	7.0	5.0	4.5	1.5	.5	3.0	2.5	5.5	4.0
21	10.5	10.0	7.0	7.0	5.0	5.0	3.5	1.5	3.0	2.0	5.0	4.5
22	10.0	9.5	7.5	7.0	5.0	3.5	3.5	1.5	3.0	2.5	6.5	4.5
23	10.5	9.5	7.5	7.5	3.5	3.0	3.5	1.5	3.5	2.5	6.0	5.5
24	10.0	9.0	7.5	7.0	3.0	3.0	3.5	1.5	4.0	2.5	5.5	4.5
25	10.0	9.5	7.0	6.5	3.0	3.0	3.5	1.5	4.0	3.0	5.0	4.5
26	10.0	9.5	6.5	6.5	4.5	3.0	3.0	.0	4.5	3.5	4.5	4.5
27	9.5	9.5	6.5	6.0	4.0	3.5	3.5	3.0	5.0	4.0	4.5	4.0
28	10.0	9.0	6.5	5.5	4.5	3.0	3.5	3.5	4.5	4.0	5.0	4.0
29	9.0	8.5	6.0	6.0	4.5	2.5	3.5	3.5	4.5	3.5	6.0	4.5
30	9.5	8.5	6.5	6.0	3.0	2.0	3.5	3.5	---	---	6.0	5.0
31	9.5	8.5	---	---	2.5	2.5	3.5	3.5	---	---	5.5	4.5
MONTH	12.5	8.5	9.0	5.0	6.5	2.0	4.0	.0	5.0	1.0	6.5	3.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	5.5	4.5	8.5	6.5	10.0	9.0	15.5	13.0	18.0	16.0	15.0	13.5
2	5.5	4.5	9.5	8.0	9.0	8.5	15.5	13.0	19.5	16.0	14.5	12.0
3	5.5	5.0	9.5	8.0	9.5	8.0	15.5	13.0	18.0	16.5	14.0	12.0
4	6.0	5.0	9.5	8.0	9.5	8.5	14.5	12.5	16.5	11.0	14.0	12.5
5	7.0	5.0	9.5	8.0	10.0	9.0	15.0	12.5	16.0	13.5	14.5	11.0
6	7.0	6.5	9.0	7.5	9.5	8.5	16.5	13.5	15.0	13.5	12.0	10.5
7	6.0	5.0	8.0	7.0	10.5	9.0	17.0	14.0	15.0	13.0	14.5	11.5
8	5.5	5.0	8.5	7.5	11.0	9.5	17.0	14.5	15.0	13.5	12.0	11.0
9	6.0	5.0	8.5	8.0	11.5	10.5	17.0	14.0	18.0	14.0	12.0	11.0
10	6.5	5.0	8.0	7.5	12.0	11.0	17.5	14.5	18.5	15.5	12.5	11.0
11	7.5	5.5	9.0	7.0	12.0	10.5	17.0	14.5	17.0	11.5	12.0	11.0
12	8.5	6.5	9.5	8.0	11.5	10.0	17.5	16.5	16.0	12.0	12.5	11.5
13	9.0	7.5	10.5	8.5	10.5	9.5	16.5	14.0	16.5	12.0	15.0	11.5
14	9.0	8.0	10.5	9.0	10.5	10.0	17.0	13.5	16.5	11.5	14.5	12.0
15	8.5	7.5	10.0	9.0	10.5	9.5	16.0	13.5	16.5	11.5	15.0	11.5
16	8.0	7.0	8.5	7.0	11.5	9.5	16.5	14.0	18.0	13.5	14.0	11.5
17	8.5	7.0	8.0	7.0	12.5	11.0	17.0	14.5	17.0	15.5	13.5	11.5
18	9.0	8.0	10.0	7.5	13.5	11.5	17.0	14.0	15.5	11.0	13.5	11.5
19	9.0	8.5	11.0	9.5	13.5	12.5	18.0	16.5	14.5	11.5	13.5	11.5
20	9.0	8.0	11.5	10.0	13.5	12.5	19.0	15.5	14.5	11.5	14.0	13.5
21	8.5	7.0	11.0	10.0	15.0	12.5	18.0	15.0	14.0	11.0	13.5	12.0
22	8.5	6.5	10.5	8.5	15.0	13.5	19.5	15.5	14.0	11.0	12.5	11.0
23	8.5	7.0	8.5	7.5	14.5	12.5	20.5	16.0	16.5	12.5	13.0	11.5
24	7.5	6.5	7.0	6.5	13.0	12.0	19.5	17.5	16.5	14.5	11.5	11.0
25	7.0	5.5	7.0	6.5	13.0	12.0	19.5	18.0	15.0	11.0	11.5	10.5
26	8.0	7.0	7.5	7.0	14.0	11.5	21.0	19.0	16.0	13.5	11.5	10.5
27	8.5	7.5	8.5	7.0	12.5	11.0	21.0	18.5	15.0	14.0	12.5	11.0
28	8.5	7.5	9.0	8.0	13.5	12.0	19.0	14.0	15.0	13.5	12.5	11.5
29	8.0	7.0	10.0	8.5	14.0	13.0	18.5	13.0	15.5	13.0	12.5	11.5
30	6.5	6.0	10.0	9.0	15.5	13.0	18.5	14.0	14.5	13.0	12.5	11.5
31	---	---	10.0	9.0	---	---	17.5	16.5	14.5	13.5	---	---
MONTH	9.0	4.5	11.5	6.5	15.5	8.0	21.0	12.5	19.5	11.0	15.0	10.5
YEAR	21.0	.0										

13341128 LONG HOLLOW CREEK AT NEZPERCE, ID

LOCATION.--Lat 46°14'03", long 116°14'10", in NW¼SE¼NW¼ sec.5, T.33 N.,R.2 E., Lewis County, Hydrologic Unit 17060306, on upstream side of Fifth Avenue bridge, one block upstream from Idaho Highway 64, two blocks east of Idaho Highway 7, 0.7 mi (1.13 km) upstream from sewage disposal ponds.

DRAINAGE AREA.--17.66 mi² (45.74 km²).

PERIOD OF RECORD.--October 1979 to September 1980. No prior records at this site.

GAGE.--Wire-weight gage and crest-stage gage to record peak flows. Altitude of gage is 3,200 ft (975 m), from topographic map.

REMARKS.--Records fair except those below 0.50 ft³/s (0.0142 m³/s), which are poor.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 22 ft³/s (623 m³/s) Feb. 18, gage height, 4.35 ft (1.326 m); minimum observed, 0.01 ft³/s (0.283 dm³/s) Aug. 10, 11; minimum observed gage height, 1.76 ft (0.536 m) Aug. 11.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 20, Nov. 27 to Dec. 4,
Dec. 27-28, Jan. 5-12, 24-31, Feb. 2-3, 13-15)

1.76	0.008	2.06	0.56
1.78	.014	2.16	1.3
1.81	.026	2.3	2.5
1.85	.051	2.7	5.6
1.89	.091	3.3	11
1.94	.17	4.3	22
2.00	.32		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.03	.71	.46	1.2	.42	3.8	3.6	1.1	2.6	.21	.02	.10
2	.03	.60	.80	1.4	1.5	3.5	2.8	.77	3.1	.17	.02	.21
3	.03	.42	1.5	1.6	3.0	3.2	2.0	.77	1.6	.39	.02	.13
4	.03	.42	2.5	1.7	8.6	6.0	1.8	.60	1.5	.36	.02	.09
5	.03	.47	4.5	1.6	7.2	5.2	1.8	.56	1.5	.39	.02	.08
6	.03	.60	4.5	1.5	4.4	4.9	2.0	.71	2.8	.32	.02	.07
7	.03	.60	3.4	1.4	4.2	4.4	2.0	1.6	2.8	.26	.02	.09
8	.03	.56	2.9	1.3	4.8	4.3	1.8	1.2	2.2	.21	.02	.09
9	.03	.56	2.5	1.2	5.4	4.5	1.5	1.6	1.2	.29	.02	.08
10	.03	.56	2.2	1.1	4.2	3.8	2.7	2.7	.77	.26	.01	.08
11	.03	.42	2.1	1.1	3.4	3.3	2.0	1.6	.56	.15	.01	.08
12	.03	.39	1.4	1.2	3.1	2.5	1.5	.86	1.6	.13	.02	.08
13	.03	.39	1.4	3.7	2.9	2.3	1.1	.95	2.5	.19	.02	.21
14	.03	.39	1.4	6.0	2.7	2.2	1.0	.86	1.4	.65	.02	.32
15	.25	.39	1.5	11	2.5	4.4	1.1	.56	2.2	.56	.03	.17
16	.29	.52	1.6	7.1	2.4	3.4	1.1	1.6	2.3	.32	.03	.13
17	.29	.71	2.5	5.2	3.0	3.3	.71	1.2	.77	.19	.03	.12
18	.32	1.6	4.2	3.7	18	4.0	.60	1.1	.56	.13	.08	.12
19	.77	.86	2.7	3.2	11	4.8	.52	.71	.42	.13	.06	.15
20	.95	.80	2.5	2.3	14	3.7	.60	.60	.42	.09	.04	.24
21	.56	.77	2.2	1.9	5.2	3.3	.60	.42	.29	.07	.03	.24
22	.47	.77	2.2	1.6	4.7	2.7	.60	.42	.24	.06	.03	.24
23	.52	.77	2.0	.86	4.2	2.5	.60	.77	.29	.04	.03	.19
24	.56	.77	2.0	.70	3.9	2.1	.71	.71	.36	.03	.02	.17
25	.56	1.2	1.6	.55	3.5	1.9	.77	3.0	.36	.02	.02	.15
26	.52	.36	2.0	.45	4.2	1.6	.71	5.4	.29	.02	.03	.15
27	.52	.32	1.8	.35	4.3	1.6	.52	3.7	.60	.02	.03	.15
28	.52	.30	1.6	.30	6.1	1.6	.47	3.4	.56	.02	.03	.15
29	.65	.30	1.5	.28	5.4	1.6	1.6	3.7	.29	.02	.03	.15
30	.86	.32	1.1	.28	---	1.8	1.9	2.0	.24	.02	.03	.15
31	.77	---	.95	.29	---	2.5	---	2.2	---	.02	.05	---
TOTAL	9.80	17.85	65.51	66.06	148.22	100.7	40.71	47.37	36.32	5.74	.86	4.38
MEAN	.32	.60	2.11	2.13	5.11	3.25	1.36	1.53	1.21	.19	.028	.15
MAX	.95	1.6	4.5	11	18	6.0	3.6	5.4	3.1	.65	.08	.32
MIN	.03	.30	.46	.28	.42	1.6	.47	.42	.24	.02	.01	.07
AC-FT	19	35	130	131	294	200	81	94	72	11	1.7	8.7

WTR YR 1980 TOTAL 543.52 MEAN 1.49 MAX 18 MIN .01 AC-FT 1080

13342450 LAPWAI CREEK NEAR LAPWAI, ID

LOCATION.--Lat 46°25'36", long 116°48'15", in NW¼NE¼NW¼ sec.35, T.36 N., R.4 W., Nez Perce County, Hydrologic Unit 17050306, on right bank 40 ft (12 m) upstream from county bridge, 0.7 mi (1.1 km) downstream from Tom Beall Creek, 1.6 mi (2.6 km) north of Lapwai, 1.6 mi (2.6 km) south of Spalding, and at mile 1.9 (3.1 km).
DRAINAGE AREA.--235 mi² (609 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1974 to current year.
GAGE.--Water-stage recorder. Datum of gage is 864.64 ft (263.5 m) National Geodetic Vertical Datum of 1929.
REMARKS.--Records good except those for winter period, which are fair. Diversions above station for irrigation of about 1,500 acres (607 hm²).
AVERAGE DISCHARGE.--6 years, 91.5 ft³/s (2.591 m³/s), 5.29 in/yr (134 mm/yr), 66,290 acre-ft/yr (81.7 hm³).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,200 ft³/s (62.3 m³/s) Dec. 1, 1975, gage height, 8.67 ft (2.643 m); minimum, 0.85 ft³/s (0.024 m³/s) Aug. 18, 19, 1977, gage height, 3.00 ft (0.914 m).
EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 4,380 ft³/s (124 m³/s) January 1965 on basis of slope-area measurement.
EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 700 ft³/s (19.8 m³/s) revised and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 26	0400	*984	27.9	6.88	2.097						

Minimum discharge, 4.7 ft³/s (0.133 m³/s) Aug. 13, 14, gage height, 3.42 ft (1.042 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 29 to Dec. 1, Jan. 29, 30)

June 20 to Sept. 30				Oct. 1 to June 19			
3.4	3.3	3.8	22	3.4	6.8	4.6	145
3.5	6.1	4.0	43	3.6	10.7	5.0	245
3.6	10	4.3	82	3.8	22.5	5.5	405
				4.0	41.0	6.5	795
				4.3	83		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.7	16	18	27	35	129	90	77	230	22	7.3	8.8
2	8.7	15	22	27	41	122	98	81	232	33	6.9	10
3	9.2	16	27	28	98	114	127	94	209	31	6.5	9.6
4	9.7	16	28	28	114	169	155	81	187	61	6.5	8.8
5	9.5	16	28	32	75	207	174	70	160	50	6.1	8.8
6	8.9	16	29	31	63	162	200	90	160	42	6.5	8.4
7	8.9	16	34	31	56	162	160	100	145	36	6.9	8.4
8	8.9	16	33	34	48	150	131	83	138	23	6.5	8.4
9	9.2	16	33	32	44	155	138	136	120	22	6.1	7.7
10	9.5	15	34	32	40	150	174	172	107	25	6.1	7.7
11	9.5	16	34	30	39	182	152	160	105	22	5.5	8.1
12	9.5	16	32	38	38	145	157	131	116	28	5.5	8.1
13	9.7	17	29	60	37	129	160	107	124	31	5.0	11
14	10	18	28	109	36	145	179	101	100	30	5.5	11
15	12	17	28	167	39	145	205	122	101	22	5.3	11
16	13	17	30	133	39	131	190	155	92	18	5.5	10
17	12	19	30	129	41	127	167	131	80	16	5.8	10
18	13	23	36	127	145	122	162	118	73	14	7.7	19
19	17	22	38	83	269	122	152	101	64	14	10	16
20	17	21	38	64	243	131	143	77	59	13	9.2	14
21	17	18	35	64	169	143	131	66	61	12	8.4	13
22	17	18	31	57	138	136	120	61	59	11	7.7	13
23	17	22	29	52	118	143	105	66	58	9.6	7.7	13
24	17	21	28	49	103	122	96	72	42	9.2	7.7	12
25	17	21	29	47	101	114	87	129	35	8.1	7.3	11
26	17	21	30	36	114	107	83	731	32	8.1	6.5	11
27	17	20	28	31	143	100	77	464	40	8.1	6.9	10
28	17	17	26	27	157	90	70	418	43	7.7	7.3	9.6
29	17	16	25	23	164	90	100	367	37	6.9	6.9	9.6
30	17	16	24	24	---	78	90	299	33	6.5	7.3	9.2
31	17	---	26	29	---	80	---	251	---	6.5	8.1	---
TOTAL	400.9	534	920	1681	2747	4102	4073	5111	3042	646.7	212.2	316.2
MEAN	12.9	17.8	29.7	54.2	94.7	132	136	165	101	20.9	6.85	10.5
MAX	17	23	38	167	269	207	205	731	232	61	10	19
MIN	8.7	15	18	23	35	78	70	61	32	6.5	5.0	7.7
CFSM	.06	.08	.13	.23	.40	.56	.58	.70	.43	.09	.03	.05
IN.	.06	.08	.15	.27	.43	.65	.64	.81	.48	.10	.03	.05
AC-FT	795	1060	1820	3330	5450	8140	8080	10140	6030	1280	421	627

CAL YR 1979 TOTAL 48005.1 MEAN 132 MAX 1250 MIN 6.8 CFSM .56 IN 7.60 AC-FT 95220
WTR YR 1980 TOTAL 23786.0 MEAN 65.0 MAX 731 MIN 5.0 CFSM .28 IN 3.77 AC-FT 47180

13342450 LAPWAI CREEK NEAR LAPWAI, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.
REMARKS.--May 21, June 18, and July 21 samples taken after Mt. St. Helens May 18, 1980, eruption and ashfall.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT
NOV												
20...	1540	20	297	7.9	4.0	6.5	120	0	31	11	19	33
MAY												
21...	1415	57	164	8.7	19.5	20.0	71	0	18	6.3	9.5	22
JUN												
19...	1500	63	179	8.6	21.0	21.0	70	0	18	6.1	9.0	21

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)
NOV											
20...	.7	3.9	150	14	3.7	.2	37	--	218	.30	11.8
MAY											
21...	.5	2.4	82	3.5	1.4	.2	36	137	130	.19	21.1
JUN											
19...	.5	2.6	83	2.9	1.2	.2	34	--	126	.17	21.4

DATE	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)
NOV								
20...	--	1.8	--	--	--	--	--	--
MAY								
21...	.68	.76	.070	.040	.08	.05	.87	.44
JUN								
19...	--	.45	--	--	--	--	--	--

DATE	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)
NOV								
20...	--	--	--	--	--	.130	--	.40
MAY								
21...	.94	.46	.48	1.6	7.2	.140	.070	.43
JUN								
19...	--	--	--	--	--	.090	--	.28

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	GROSS ALPHA, DISSOLVED (PCI/L AS U-NAT)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)
MAY				
21...	1.2	.8	<.8	2.8

SUSPENDED-SEDIMENT DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	STREAM-FLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
MAY			
21...	57	36	5.5

13342450 LAPWAI CREEK NEAR LAPWAI, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, SUSPENDED RECOV. (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, TOTAL (UG/L AS SB)	ANTIMONY, SUSPENDED TOTAL (UG/L AS SB)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)
MAY 21...	230	230	0	0	0	0	1	0	1	100	60	*40

DATE	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	BORON, SUSPENDED RECOVERABLE (UG/L AS B)	BORON, DISSOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)
MAY 21...	<1	<100	10	<100	2	2	*0	0	0	0	<5

DATE	COBALT, SUSPENDED RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)
MAY 21...	0	* <5	<10	6	* <10	1400	1300	120	37	37	* <10

DATE	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI)
MAY 21...	<10	* <10	<50	30	* 6	<1.0	.1	.0	<10	16	14

DATE	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
MAY 21...	<10	0	0	0	0	0	0	70	7.0	<50	* <5

* The inductively coupled plasma atomic-emission spectroscopy analytical method was used.

13342500 CLEARWATER RIVER AT SPALDING, ID

LOCATION.--Lat 46°26'55", long 116°49'35", in Indian allotment 198, NE¼SW¼ sec.22, T.36 N., R.4 W., Nez Perce County, Hydrologic Unit 17060306, Nez Perce Indian Reservation, on left bank 0.4 mi (0.6 km) downstream from Lapwai Creek, 0.6 mi (1.0 km) west of Spalding Post Office, 0.9 mi (1.4 km) upstream from U.S. Highway 95 bridge, and at mile 11.6 (18.7 km).

DRAINAGE AREA.--9,570 mi² (24,790 km²), approximately. Mean altitude, 4,360 ft (1,329 m).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1910 to October 1913, October 1924 to January 1925, April 1925 to current year. Published as "near Lewiston" 1910-13, 1924-27. Records published for both sites March 1926 to September 1927.

REVISED RECORDS.--WSP 1737: 1927, 1935, 1943.

GAGE.--Water-stage recorder. Altitude of gage is 770.5 ft (234.85 m) estimated from datum of gage 3,100 ft (945 m) upstream. See WRD for Idaho 1966-68 for history of changes prior to Oct. 1, 1962.

REMARKS.--Records good. Diversions above station for irrigation of about 1,630 acres (660 hm²) 1966 determination. Regulation of the North Fork Clearwater River at Ahsahka began on Sept. 27, 1971, when diversion tunnel at Dworshak Dam was closed.

AVERAGE DISCHARGE.--58 years (1910-13, 1925-80), 15,480 ft³/s (438.4 m³/s), 11,220,000 acre-ft/yr (13,830 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 177,000 ft³/s (5,010 m³/s) May 29, 1948, gage height, 23.76 ft (7.242 m); maximum gage height, 27.77 ft (8.464 m) Feb. 5, 1963, from floodmark (ice jam); minimum daily discharge, 500 ft³/s (14.2 m³/s) Jan. 9, 1937, Dec. 1, 1952.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1894 reached a stage of 20.8 ft (6.34 m), site and datum in use 1924-26, discharge, 136,000 ft³/s (3,850 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 52,300 ft³/s (1,481 m³/s) May 26, gage height, 12.26 ft (3.737 m); minimum, 2,350 ft³/s (66.6 m³/s) Oct. 4, 5, gage height, 2.51 ft (0.765 m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

2.3	2,120	7.0	16,500
3.0	3,000	9.0	27,400
4.0	5,220	11.0	41,800
5.0	8,400	14.0	69,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4180	3960	11100	2850	9780	10200	10400	33700	33100	14700	4530	2790
2	4310	3700	11800	3150	5600	9150	10200	32300	44000	14600	4150	6070
3	4300	3620	12300	3320	3800	8420	10100	33700	39500	14900	3780	8100
4	4310	3570	13400	3290	9820	9640	10300	36000	36800	17800	6980	8570
5	4270	3610	13600	3270	6740	11700	7270	36800	34400	16600	4760	8500
6	3520	3690	14200	3470	5510	10500	6140	36900	35900	15100	4900	10100
7	2780	3720	13400	7640	6710	9480	10300	35700	35400	15200	4790	5460
8	2950	3690	13400	12500	6240	8630	11500	32800	31700	13700	4710	8500
9	3080	3610	13200	12400	4730	8360	11300	32600	32100	13300	3920	9210
10	3010	3560	13100	12300	3790	8350	9010	30700	34300	12300	3250	9140
11	3030	3540	13600	12200	5030	8710	7920	27500	37600	11600	4610	9140
12	3010	3540	13100	4930	5710	8710	7800	24000	38400	8680	6720	11600
13	2960	3510	12700	3720	5640	7900	8030	22200	38900	9430	6790	9610
14	2960	3320	12700	11700	6740	8640	8980	21700	33500	11200	6720	8210
15	2990	3130	12700	15600	10500	9110	11000	24600	37000	11200	6660	8240
16	3060	3060	12800	14500	4930	7980	13500	27900	37900	11200	4060	8000
17	3680	3120	12700	13500	3290	7330	13400	21700	33400	10200	2930	7790
18	3560	3570	13200	12700	5750	7120	13900	19900	33100	9720	4660	7210
19	3840	4570	13600	7010	10700	7120	17100	20500	32000	7150	6690	4660
20	5470	11300	13300	4030	12100	7050	19700	28000	30300	6590	6720	3670
21	6350	11500	13100	8260	11100	10200	23300	33500	28200	8950	6750	5810
22	5260	11300	5960	10700	9370	8570	24200	36500	21900	8390	6530	10300
23	4490	11200	3560	10700	8090	6670	30000	40600	21300	6560	4130	10500
24	4510	11400	3310	10500	7080	9600	34200	36000	20700	6160	2920	9870
25	5310	11700	3270	10500	7610	10800	35800	31900	20200	5520	4900	9720
26	5460	11600	6870	5500	6630	10500	32400	48200	19100	4840	3150	9430
27	6660	10800	3760	10700	7130	10500	34300	41100	18200	4640	2760	6130
28	6270	8800	3720	11500	8030	10500	36700	36100	14200	6070	2730	4790
29	5600	11100	5020	11400	11300	7040	43900	34700	14500	7620	2730	4610
30	4660	10800	2840	11500	---	5410	39500	33200	15600	6040	2750	4640
31	4500	---	2720	11700	---	8840	---	32500	---	4660	2730	---
TOTAL	130140	189490	314030	277040	209490	272730	552150	983500	903200	314620	144310	230370
MEAN	4198	6316	10130	8937	7224	8798	18410	31730	30110	10150	4655	7679
MAX	6660	11700	14200	15600	12100	11700	43900	48200	44000	17800	6980	11600
MIN	2780	3060	2720	2850	3290	5410	6140	19900	14200	4640	2730	2790
AC-FT	258100	375900	622900	549500	415500	541000	1095000	1951000	1791000	624000	286200	456900

CAL YR 1979 TOTAL 4809940 MEAN 13180 MAX 60700 MIN 2720 AC-FT 9541000
WTR YR 1980 TOTAL 4521070 MEAN 12350 MAX 48200 MIN 2720 AC-FT 8968000

13342500 CLEARWATER RIVER AT SPALDING, ID--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959-60, 1968 to current year.
PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1959 to current year.
REMARKS.--May 21 and June 18 samples taken after Mt. St. Helens May 18, 1980, eruption and ashfall.
INSTRUMENTATION.--Temperature recorder since October 1959.
EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 28°C Aug. 13, 1963; minimum, 0.0°C on several days during winter periods.
EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 22.0°C July 23-27; minimum, 0.0°C Jan. 26-27.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)
OCT 24...	1100	4000	90	7.0	11.5	11.0	1.3	10.4	96	52
NOV 19...	1345	4660	45	7.5	6.5	9.5	1.6	12.8	106	250
DEC 18...	1230	13100	35	7.2	8.0	2.0	1.6	13.5	101	K7
JAN 23...	1230	10600	42	7.2	6.0	4.0	2.2	13.2	102	130
MAR 17...	1430	7300	125	7.4	10.0	5.0	9.9	11.8	97	30
APR 22...	1200	23900	60	7.1	20.5	11.0	7.8	11.9	108	K54
MAY 21...	1800	39900	32	7.3	22.5	17.0	3.1	--	--	27
JUN 18...	0830	32800	42	6.8	19.0	13.0	2.3	10.9	106	43
JUL 21...	1500	10600	50	7.8	34.5	21.2	1.5	9.6	110	K1400
AUG 14...	0930	3370	60	6.5	21.0	14.0	1.6	9.8	103	K38
SEP 23...	0845	3490	41	7.1	12.0	12.5	1.6	9.4	91	90

DATE	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)
OCT 24...	550	15	0	4.3	1.0	2.4	25	.3	.8	16
NOV 19...	K15000	16	0	4.7	1.1	2.7	32	.3	.8	17
DEC 18...	310	14	0	4.1	.9	1.9	22	.2	.6	16
JAN 23...	>2000	17	1	4.7	1.2	2.3	22	.2	.8	16
MAR 17...	1000	24	3	6.5	1.8	3.7	24	.3	1.1	21
APR 22...	190	8	0	2.8	.3	1.6	26	.2	.6	11
MAY 21...	32	14	5	4.0	1.0	1.1	14	.1	.6	9
JUN 18...	61	10	8	3.0	.7	1.5	23	.2	.5	2
JUL 21...	860	11	0	3.3	.7	1.9	26	.2	.5	13
AUG 14...	180	13	2	3.8	.9	1.7	21	.2	.5	11
SEP 23...	270	11	1	3.6	.6	1.6	22	.2	.6	10

K Results based on count outside ideal colony count range.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)
OCT											
24...	2.6	.8	.1	11	21	33	.03	227	.04	.040	.56
NOV											
19...	6.7	.7	.0	13	53	40	.07	667	.05	.020	.22
DEC											
18...	2.2	.7	.0	12	28	33	.04	990	.13	.000	.23
JAN											
23...	.3	.6	.1	13	35	34	.05	1000	.43	.010	.33
MAR											
17...	2.0	1.0	.1	19	66	53	.09	1300	1.2	.000	.35
APR											
22...	2.4	.5	.1	11	27	26	.04	1740	.20	.000	.71
MAY											
21...	.8	.1	.1	8.8	23	22	.03	2480	.06	.010	.47
JUN											
18...	5.4	2.9	.1	9.9	26	26	.04	2380	.06	.010	.25
JUL											
21...	.5	.2	.2	12	30	27	.04	659	.00	.010	.60
AUG											
14...	2.1	.6	.2	11	31	27	.04	282	.00	.000	.27
SEP											
23...	.7	1.6	.1	10	23	34	.03	217	.00	.050	.44

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, NH4 + ORG. SUSP, TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, TOTAL (MG/L AS PO4)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED (MG/L AS C)
OCT											
24...	.60	.19	.41	.64	2.8	.010	.03	.010	3.4	--	--
NOV											
19...	.24	.01	.23	.29	1.3	.020	.06	.030	5.5	--	--
DEC											
18...	.23	.00	.26	.36	1.6	.010	.03	.010	--	2.4	.2
JAN											
23...	.34	.00	.35	.77	3.4	.020	.06	.010	2.6	--	--
MAR											
17...	.35	.00	.41	1.6	6.9	.070	.21	.050	--	3.2	.3
APR											
22...	.71	.50	.21	.91	4.0	.040	.12	.010	5.4	--	--
MAY											
21...	.48	.00	.49	.54	2.4	.030	.09	.010	3.6	--	--
JUN											
18...	.26	.00	2.0	.32	1.4	.020	.06	.010	--	3.1	--
JUL											
21...	.61	.08	.53	.61	2.7	.040	.12	.030	3.3	--	--
AUG											
14...	.27	.03	.24	.27	1.2	.030	.09	.030	4.5	--	--
SEP											
23...	.49	.10	.39	.49	2.2	.030	.09	.010	--	4.8	1.1

13342500 CLEARWATER RIVER AT SPALDING, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)
DEC 18...	0	0	1	300	<300	<100	0	0	<1	4	4
MAR 17...	0	0	0	0	0	<100	0	0	<1	0	0
MAY 21...	0	0	0	100	100	* 0	1	0	* 1	0	0
JUN 18...	0	0	0	<100	0	*20	0	--	*<1	0	0
SEP 23...	1	1	0	0	0	<100	0	--	<1	0	0

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)
DEC 18...	0	2	0	<3	4	4	0	100	50	50
MAR 17...	0	0	0	<3	11	5	6	730	490	240
MAY 21...	0	<5	0	* <5	12	6	* <10	260	200	60
JUN 18...	0	<5	--	* <5	<10	2	* <10	270	230	40
SEP 23...	0	0	--	<3	21	16	5	160	130	30

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)
NOV 19...	--	--	--	--	--	--	--	--	--
DEC 18...	6	6	0	10	<10	<10	.0	.0	.0
JAN 23...	--	--	--	--	--	--	--	--	--
MAR 17...	4	4	0	10	<10	<10	.0	.0	.0
APR 22...	--	--	--	--	--	--	--	--	--
MAY 21...	20	7	* 13	<50	10	* 0	<1.0	.1	.0
JUN 18...	<5	2	*<10	<50	--	*<1	<1.0	.1	.0
JUL 21...	--	--	--	--	--	--	--	--	--
SEP 23...	5	5	0	0	0	<10	.0	.0	.0

DATE	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, SUS-PENDED RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV 19...	--	--	--	0	--	--	--	--	--
DEC 18...	0	0	0	0	0	1	20	0	20
JAN 23...	--	--	--	0	--	--	--	--	--
MAR 17...	0	0	0	0	0	0	40	20	20
APR 22...	--	--	--	0	--	--	--	--	--
MAY 21...	0	0	0	0	0	0	<50	0	* 30
JUN 18...	0	0	0	0	0	0	<50	20	*<10
JUL 21...	--	--	--	0	--	--	--	--	--
SEP 23...	0	0	0	0	0	0	20	10	10

* The inductively coupled plasma atomic-emission spectroscopy analytical method was used.

13342500 CLEARWATER RIVER AT SPALDING, ID--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO SEPTEMBER 1980

		NOV 19,79	MAR 17,80	JUN 18,80	JUL 21,80	SEP 23,80
DATE		NOV 19,79	MAR 17,80	JUN 18,80	JUL 21,80	SEP 23,80
TIME		1345	1430	0830	1500	0845
TOTAL CELLS/ML		170	170	370	440	420
DIVERSITY:	DIVISION	0.9	0.9	0.9	0.8	1.6
	.CLASS	0.9	0.9	0.9	0.8	1.6
	..ORDER	0.9	0.9	1.0	1.3	2.1
	...FAMILY	2.8	1.5	1.2	1.4	2.8
	....GENUS	2.8	1.5	1.2	1.5	2.8

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...OOCYSTACEAE										
....TETRAEDRON	--	-	--	-	--	-	--	-	26	6
...SCENEDESMACEAE										
....SCENEDESMUS	52#	31	--	-	--	-	--	-	100#	24
..TETRASPORALES										
...PALMELLACEAE										
....SPHAEROCYSTIS	--	-	--	-	--	-	--	-	100#	24
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	--	-	--	-	13	3	39	9	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	13	8	--	-	13	3	--	-	13	3
...CYMBELLACEAE										
....CYMBELLA	13	8	--	-	--	-	--	-	--	-
...FRAGILARIACEAE										
....ASTERIONELLA	--	-	13	8	90#	24	13	3	--	-
....HANNAEA	13	8	--	-	--	-	--	-	--	-
....SYNEDRA	--	-	--	-	--	-	39	9	13	3
...GOMPHONEMATACEAE										
....GOMPHONEMA	13	8	--	-	--	-	--	-	--	-
...NAVICULACEAE										
....NAVICULA	26#	15	13	8	--	-	--	-	26	6
...NITZSCHIACEAE										
....NITZSCHIA	26#	15	13	8	--	-	26	6	--	-
...SURIRELLACEAE										
....SURIRELLA	--	-	13	8	--	-	--	-	--	-
...TABELLARIACEAE										
....TABELLARIA	13	8	--	-	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)										
.CRYPTOPHYCEAE										
..CRYPTOMONADALES										
...CRYPTOCHRYSIDACEAE										
....CHROOMONAS	--	-	--	-	--	-	--	-	90#	21
...CRYPTOMONADACEAE										
....CRYPTOMONAS	--	-	--	-	--	-	--	-	26	6
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....ANACYSTIS	--	-	120#	69	--	-	13	3	26	6
..HORMOGONALES										
...OSCILLATORIACEAE										
....OSCILLATORIA	--	-	--	-	260#	69	310#	71	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

13342500 CLEARWATER RIVER AT SPALDING, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS)
DEC 18...	1.89	1.50	4.75	.380	82.1
APR 22...	10.7	9.84	11.0	.470	78.2
JUL 21...	1.18	.866	.440	.000	714

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 24...	1100	3	32	--
NOV 19...	1345	3	38	--
DEC 18...	1230	3	106	87
JAN 23...	1230	5	143	85
MAR 17...	1430	13	256	95
APR 22...	1200	27	1740	85
MAY 21...	1800	42	4530	--
JUN 18...	0830	6	531	71
JUL 21...	1500	7	57	--
AUG 14...	0930	3	27	--
SEP 23...	0845	3	28	--

13342500 CLEARWATER RIVER AT SPALDING, ID--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	14.0	12.0	9.5	9.0	5.0	5.0	2.0	2.0	2.0	2.0	6.5	5.5
2	14.0	12.0	9.0	8.0	5.0	5.0	2.0	2.0	3.0	2.0	6.5	6.0
3	13.5	11.5	9.0	8.0	5.0	5.0	2.0	2.0	3.0	1.5	6.5	5.0
4	13.0	11.0	9.0	8.5	5.0	5.0	2.0	2.0	2.0	1.5	6.5	6.0
5	13.5	11.5	9.0	8.5	5.5	5.5	2.0	2.0	2.0	2.0	6.5	5.0
6	13.5	11.5	8.5	8.5	5.5	4.5	2.0	.5	2.0	1.5	6.0	5.0
7	13.5	12.0	8.5	8.0	4.5	4.5	2.0	.5	3.0	1.5	5.5	5.5
8	14.0	12.0	8.5	8.0	4.5	4.5	2.0	2.0	3.5	3.5	6.5	5.5
9	13.5	11.5	8.5	8.0	4.5	4.5	2.0	2.0	3.5	3.0	6.5	5.5
10	13.5	11.5	8.0	6.5	4.5	4.0	2.0	2.0	3.5	3.0	8.0	6.0
11	13.5	11.5	7.0	7.0	4.0	4.0	2.0	2.0	3.0	3.0	8.0	6.5
12	13.5	11.5	7.0	6.0	4.0	4.0	3.0	2.0	3.0	3.0	8.0	6.5
13	13.5	11.5	6.5	6.0	4.0	4.0	3.0	3.0	3.0	3.0	8.0	7.0
14	13.5	12.0	6.5	6.0	4.0	4.0	3.0	2.0	3.0	3.0	8.0	7.0
15	14.0	13.5	6.0	5.0	4.0	4.0	2.0	2.0	3.5	3.0	7.0	6.0
16	14.0	12.0	5.0	5.0	4.0	4.0	2.0	2.0	3.5	3.0	7.0	5.5
17	12.0	11.5	5.5	5.0	4.0	4.0	2.0	2.0	3.5	3.0	6.5	6.0
18	11.5	10.5	5.5	5.5	4.5	4.0	2.0	2.0	4.0	3.0	7.0	6.0
19	11.0	10.0	5.5	5.0	4.5	4.5	2.0	1.0	5.0	4.5	7.0	6.5
20	11.5	11.0	5.5	4.5	4.5	4.5	1.0	.5	5.0	4.5	7.0	6.5
21	11.5	11.0	5.5	5.5	4.5	4.5	2.0	.5	4.5	4.5	7.0	6.5
22	11.0	10.5	5.5	5.5	4.5	4.0	2.0	2.0	4.5	4.5	9.0	6.0
23	11.0	10.5	6.0	5.5	4.0	3.0	2.0	2.0	5.0	4.5	8.5	7.0
24	11.0	11.0	6.0	6.0	3.0	3.0	2.0	2.0	5.0	4.5	8.0	6.5
25	11.0	11.0	6.0	6.0	3.0	3.0	2.0	2.0	5.5	5.0	8.0	5.5
26	11.0	11.0	6.0	5.5	3.0	3.0	2.0	.0	6.0	5.5	7.0	5.5
27	11.0	10.5	5.5	5.0	3.5	3.0	1.5	.0	6.0	6.0	6.5	6.5
28	10.5	9.5	5.0	4.5	3.5	3.0	1.5	1.5	6.0	6.0	8.0	6.0
29	9.5	9.5	4.5	4.5	3.0	3.0	2.0	2.0	6.0	5.0	8.0	7.0
30	9.5	9.0	5.0	4.5	3.0	2.0	2.0	2.0	---	---	8.5	6.5
31	9.0	8.5	---	---	2.0	2.0	2.0	2.0	---	---	8.5	6.5
MONTH	14.0	8.5	9.5	4.5	5.5	2.0	3.0	.0	6.0	1.5	9.0	5.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.0	6.0	8.5	8.0	10.5	9.5	17.0	13.0	19.5	18.0	15.5	14.0
2	8.0	6.0	9.5	8.5	9.5	9.0	16.0	13.5	19.0	17.0	16.0	13.5
3	8.5	6.0	9.5	9.0	9.5	8.5	16.0	13.5	19.5	18.0	14.0	12.0
4	8.5	6.5	9.5	9.0	10.0	9.0	15.0	13.0	18.5	13.0	14.5	11.5
5	8.5	7.0	9.5	9.0	9.5	8.5	15.0	13.5	17.0	12.0	14.5	12.0
6	8.5	8.0	9.5	9.5	9.5	9.0	17.0	14.0	17.0	15.0	14.0	11.0
7	8.0	6.5	9.5	8.5	9.5	8.5	18.5	15.0	16.5	14.5	14.0	11.0
8	7.0	6.5	8.5	8.5	10.5	9.5	19.0	15.0	16.0	14.5	14.0	11.5
9	7.0	7.0	9.5	8.5	10.5	10.0	19.0	15.0	16.0	14.5	13.0	11.0
10	8.5	6.5	9.0	8.5	11.0	10.5	19.0	15.0	19.5	16.0	11.5	11.0
11	10.5	7.0	9.0	8.0	11.0	10.0	19.0	15.0	19.0	16.5	13.0	11.0
12	10.5	7.0	9.0	8.5	11.0	10.0	18.5	15.5	17.0	13.0	11.5	10.5
13	12.0	8.5	10.0	9.0	10.0	9.0	19.0	17.0	16.5	12.0	13.5	11.5
14	11.5	9.5	10.5	10.0	9.5	9.5	17.0	15.0	16.5	12.0	14.0	11.5
15	10.5	9.5	10.5	9.0	9.5	9.5	18.0	14.5	16.0	13.0	14.0	11.5
16	11.0	8.5	9.0	8.5	10.5	9.0	19.0	15.0	15.0	12.0	13.5	11.0
17	11.0	9.0	8.5	7.0	11.0	10.5	19.5	15.5	18.0	15.0	13.5	11.0
18	12.0	9.5	8.0	7.0	12.0	10.5	19.5	15.5	18.0	14.0	12.0	11.5
19	11.5	10.5	10.0	8.0	13.0	12.0	20.0	15.5	15.0	11.5	13.0	11.5
20	11.0	10.0	10.5	10.0	13.5	13.0	21.0	19.0	15.5	12.0	14.0	12.0
21	11.0	9.5	10.5	10.5	13.5	13.0	21.0	17.0	15.5	11.5	13.5	13.0
22	9.5	9.0	10.5	9.5	14.0	13.5	21.0	16.0	15.0	12.0	13.0	11.5
23	9.5	9.0	9.5	8.5	13.5	12.0	22.0	17.0	14.0	12.0	11.5	11.5
24	9.0	9.0	8.5	---	14.0	12.0	22.0	18.5	18.0	14.0	14.0	13.5
25	9.0	8.5	6.5	6.5	13.5	12.0	22.0	18.5	17.0	13.5	13.5	12.0
26	9.0	8.0	8.0	6.5	13.5	12.0	22.0	19.5	14.5	11.5	13.0	11.5
27	9.0	9.0	9.0	8.0	12.0	11.5	22.0	20.0	16.5	14.5	13.5	12.0
28	9.0	9.0	9.5	8.5	14.5	11.5	21.5	19.5	16.0	14.0	14.5	13.5
29	9.0	8.5	10.0	9.0	15.5	13.5	19.5	15.5	16.0	13.5	14.0	13.0
30	8.5	8.0	10.0	9.5	16.0	13.0	18.5	13.5	15.5	14.0	14.0	13.5
31	---	---	10.5	9.5	---	---	19.0	18.0	15.5	14.5	---	---
MONTH	12.0	6.0	10.5	6.5	16.0	8.5	22.0	13.0	19.5	11.5	16.0	10.5
YEAR	22.0	.0										

13343202 LOWER GRANITE RESERVOIR AT LEWISTON, ID

LOCATION.--Lat 46°25'29", long 117°02'01", in SE¼NE¼SW¼, sec. 36, T.36 N., R.6 W., in Nez Perce County, Hydrologic Unit 17060306, on left bank at mouth of Clearwater River at Lewiston, Idaho, at mile 0.0 (0.0 km).

DRAINAGE AREA.--103,500 mi² (268,100 km²), approximately, at Lower Granite Dam.

PERIOD OF RECORD.--October 1979 to September 1980 (discontinued).

GAGE.--Water-stage recorder located in an annex on upstream side of Army Corps of Engineers visitor center. Datum of gage is 730.00 ft (222.504 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Army Corps of Engineers have operated a recorder at this site since August 1974 but records have not been published. Reservoir pool is normally kept between 733 ft (223.418 m) and 738 ft (224.942 m) for maximum power output. Records are good.

COOPERATION.--Recording equipment furnished by Army Corps of Engineers, Walla Walla, Washington.

EXTREMES FOR CURRENT YEAR.--Maximum elevation 738.20 ft (225.003 m) Sept. 18; minimum elevation 732.85 ft (223.373 m) Feb. 2.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	736.10	734.90	733.84	735.94	734.49	736.42	734.39	736.57	737.09	733.54	735.16	735.84
2	735.80	733.93	734.15	734.87	733.64	735.69	734.28	736.33	737.22	734.23	736.30	736.18
3	735.67	733.77	734.94	735.39	734.58	736.42	733.80	736.51	736.34	735.94	736.07	735.65
4	735.31	735.29	736.42	734.14	735.62	736.52	734.37	736.88	736.32	736.55	736.23	735.64
5	734.46	734.58	737.14	734.91	734.96	736.79	735.57	737.25	736.89	736.45	735.70	736.05
6	734.33	734.83	734.91	736.17	735.11	736.47	736.07	736.20	737.00	737.14	736.22	736.22
7	735.08	734.44	733.50	735.80	736.36	733.74	735.02	736.42	736.50	735.98	736.17	735.98
8	735.37	734.32	734.22	735.17	735.51	733.89	735.76	736.65	736.47	736.42	735.29	736.12
9	735.00	734.20	734.04	734.54	734.51	734.33	736.04	736.94	736.57	735.00	736.42	736.03
10	734.33	735.70	733.80	734.43	735.63	733.56	733.64	736.18	737.66	734.00	735.54	735.21
11	735.22	736.44	734.79	734.00	735.42	733.93	733.89	735.66	737.16	733.61	733.36	734.98
12	735.50	736.50	735.33	734.08	735.43	733.91	734.35	735.90	737.58	736.04	734.71	736.31
13	735.37	735.08	735.22	734.93	734.64	733.92	735.30	736.43	736.92	736.08	733.87	736.70
14	736.39	733.70	735.38	735.17	734.01	734.14	735.43	736.29	736.79	735.23	733.58	736.39
15	734.44	734.11	735.29	734.79	733.95	733.62	735.53	736.44	737.23	736.51	736.12	736.18
16	734.63	734.75	734.68	734.74	733.51	736.53	735.22	736.12	737.25	736.16	736.06	736.63
17	735.24	734.16	734.47	734.50	736.49	735.04	735.20	735.76	737.41	736.18	734.49	736.65
18	735.10	733.59	735.70	734.28	735.41	734.76	735.97	735.74	737.58	735.90	736.15	736.24
19	735.40	733.31	734.96	734.75	736.09	734.65	734.83	736.49	737.31	735.74	736.36	736.98
20	735.68	734.35	733.48	735.51	736.53	734.26	734.47	736.63	737.20	736.86	734.94	736.02
21	735.97	734.13	734.17	735.43	735.43	734.76	734.35	736.60	737.27	735.26	735.82	736.08
22	735.14	734.67	734.04	734.87	733.97	734.65	735.60	736.53	737.37	735.50	735.34	736.81
23	735.97	734.63	734.94	733.90	734.23	735.64	735.98	736.58	736.95	735.37	736.94	736.62
24	734.85	734.18	735.56	734.07	734.85	735.01	734.52	736.82	737.15	734.26	736.60	735.69
25	733.34	735.99	736.27	735.02	734.33	733.48	737.78	736.24	736.21	735.52	736.69	736.44
26	734.50	736.16	734.70	733.90	735.11	733.80	737.15	736.52	735.16	736.15	735.72	736.49
27	735.39	735.59	734.03	736.14	736.07	733.51	737.61	736.74	734.18	736.35	735.31	734.92
28	735.82	734.48	733.94	735.25	736.56	734.90	737.27	736.06	734.39	735.68	734.76	736.08
29	735.15	734.12	734.29	733.82	737.44	733.90	737.21	736.17	735.93	736.01	735.26	736.99
30	735.81	734.14	735.58	734.28	---	734.94	736.59	736.16	733.94	736.02	736.77	735.32
31	735.63	---	735.69	734.76	---	734.77	---	736.29	---	735.22	736.46	---
MEAN	735.23	734.67	734.82	734.82	735.17	734.77	735.44	736.39	736.63	735.64	735.63	736.11
MAX	736.39	736.50	737.14	736.17	737.44	736.79	737.78	737.25	737.66	737.14	736.94	736.99
MIN	733.34	733.31	733.48	733.82	733.51	733.48	733.64	735.66	733.94	733.54	733.36	734.92

WTR YR 1980 MEAN 735.44 MAX 737.78 MIN 733.31

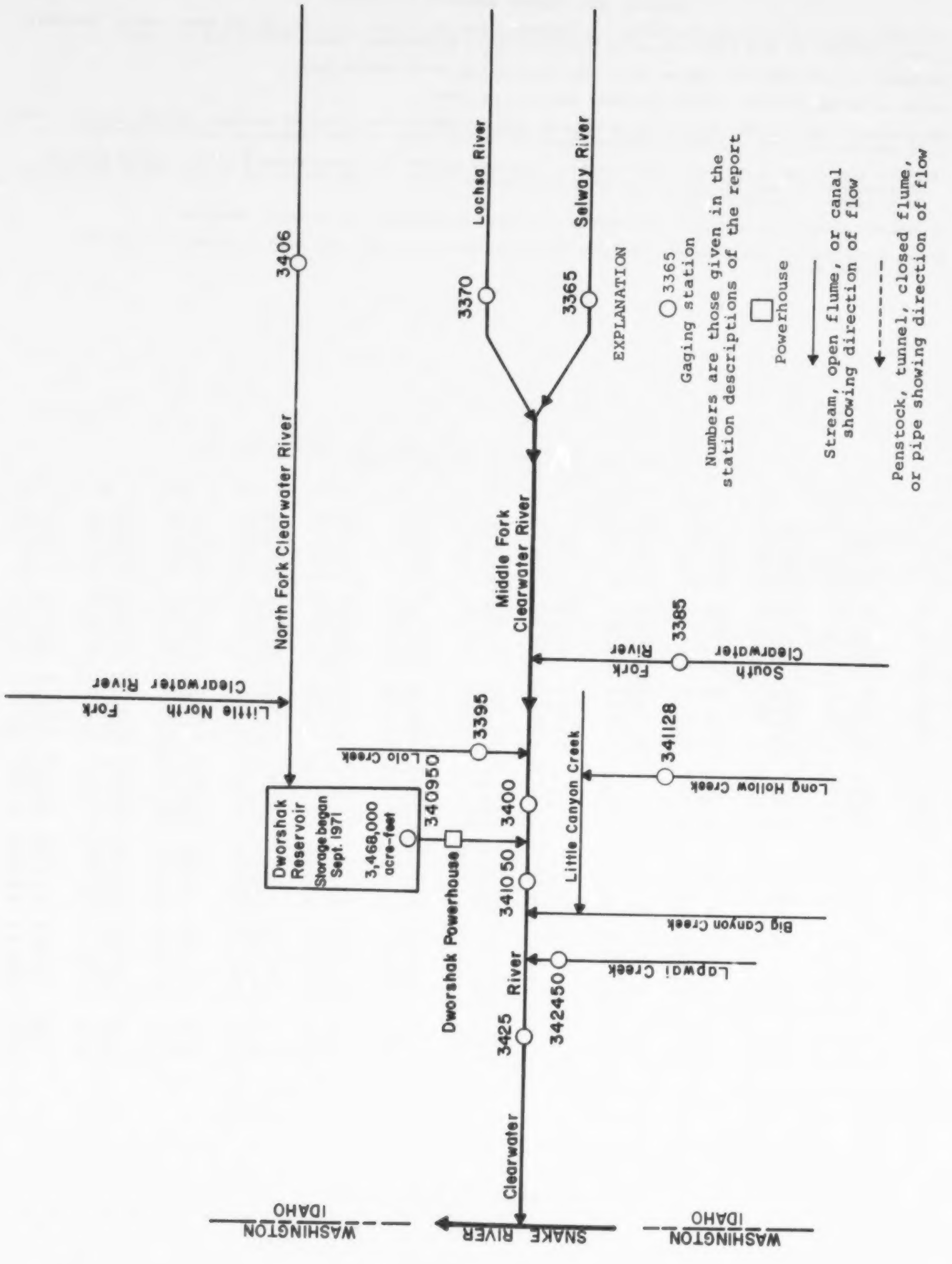

FIGURE 16.-- Gaging stations in Clearwater River basin.

13345000 PALOUSE RIVER NEAR POTLATCH, ID

LOCATION.--Lat 46°54'55", long 116°57'00", in NE¼NW¼ sec.10, T.41 N., R.5 W., Latah County, Hydrologic Unit 17060108, on left bank 20 ft (6.1 m) downstream from bridge on U.S. Highway 95, 1.0 mi (1.6 km) downstream from Deep Creek, 2.0 mi (3.22 km) west of Potlatch, and at mile 132.2 (213 km).

DRAINAGE AREA.--317 mi² (821 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1914 to September 1919, December 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,455.11 ft (748.318 m) National Geodetic Vertical Datum of 1929 (levels by Idaho Department of Highways). October 1914 to September 1919 water-stage recorder at site 0.2 mi (0.31 km) upstream at different datum.

REMARKS.--Records good. Low and medium flows regulated at millpond in Potlatch prior to 1974. Small amounts of water diverted for sprinkle irrigation systems above gage.

AVERAGE DISCHARGE.--18 years (1915-19, 1968-80), 276 ft³/s (7.82 m³/s), 11.82 in/yr (300 mm/yr), 200,000 acre-ft/yr (247 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,100 ft³/s (286 m³/s) Jan. 16, 1974, gage height, 21.08 ft (6.425 m); minimum daily, 0.07 ft³/s (0.002 m³/s) Sept. 24, 1973.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 2,000 ft³/s (56.5 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 26	1430	*2360	66.8	11.71	3.569						

Minimum discharge, 3.0 ft³/s (85.0 dm³/s) Oct. 4, 5, gage height, 4.05 ft (1.234 m).

Rating table (gage height, in feet, and discharge in cubic feet per second)
(Shifting-control method used Oct. 1-7, Jan. 14-21, Feb. 3-10, Feb. 17 to Apr. 26,
May 26 to June 9, June 13 to July 4)

3.9	2.3	5.0	78
4.0	3.8	5.5	147
4.1	6.0	6.0	240
4.2	9.4	7.0	482
4.4	20	8.5	980
4.6	36	10.5	1880

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	19	14	39	34	707	310	138	607	51	15	18
2	3.6	17	25	48	98	558	282	131	559	47	15	25
3	3.7	15	87	50	420	496	266	128	405	49	15	17
4	3.6	14	207	35	364	846	255	114	324	45	15	13
5	3.4	14	318	48	242	668	257	101	273	43	15	11
6	3.7	15	149	33	213	516	286	106	251	40	14	10
7	3.8	15	96	32	188	418	286	120	208	37	14	10
8	3.9	14	81	34	163	352	264	105	176	34	14	9.6
9	4.0	13	72	31	144	332	284	107	154	31	14	9.6
10	4.0	13	78	31	147	315	360	120	140	35	13	12
11	4.0	13	78	33	126	559	333	118	129	55	13	14
12	4.0	13	68	40	110	580	320	97	123	44	9.2	14
13	4.7	12	56	95	99	548	322	88	240	41	8.8	13
14	4.9	11	47	525	88	895	350	83	221	40	8.0	12
15	6.4	11	47	1640	86	873	441	89	295	40	8.0	11
16	8.0	12	60	899	83	545	435	129	264	36	8.8	10
17	12	16	64	430	132	430	387	116	253	34	11	9.0
18	14	36	83	295	515	389	364	99	189	29	25	10
19	18	47	91	213	702	326	352	90	159	28	20	13
20	50	34	77	183	978	308	333	79	137	28	15	24
21	39	23	67	169	778	317	315	72	118	27	13	23
22	29	17	59	132	524	299	295	73	106	25	9.6	21
23	29	25	51	115	389	286	264	73	118	25	10	18
24	38	25	52	99	299	273	236	68	98	22	10	16
25	34	22	48	91	277	255	210	95	79	21	9.2	14
26	35	20	46	68	299	242	187	1780	77	20	8.8	13
27	41	18	38	57	449	273	169	1100	80	20	8.4	12
28	28	13	28	50	582	271	154	645	72	18	8.8	11
29	25	12	32	40	923	280	159	451	63	17	8.4	11
30	24	12	32	32	---	331	161	372	56	16	9.6	9.6
31	22	---	34	30	---	350	---	362	---	15	13	---
TOTAL	507.3	541	2285	5617	9452	13838	8637	7249	5974	1013	379.6	413.8
MEAN	16.4	18.0	73.7	181	326	446	288	234	199	32.7	12.2	13.8
MAX	50	47	318	1640	978	895	441	1780	607	55	25	25
MIN	3.4	11	14	30	34	242	154	68	56	15	8.0	9.0
CFSM	.05	.06	.23	.57	1.03	1.41	.91	.74	.63	.10	.04	.04
IN.	.06	.06	.27	.66	1.11	1.62	1.01	.85	.70	.12	.04	.05
AC-FT	1010	1070	4530	11140	18750	27450	17130	14380	11850	2010	753	821

CAL YR 1979 TOTAL 97309.2 MEAN 267 MAX 4210 MIN 3.4 CFSM .84 IN 11.42 AC-FT 193000
WTR YR 1980 TOTAL 55906.7 MEAN 153 MAX 1780 MIN 3.4 CFSM .48 IN 6.56 AC-FT 110900

13345000 PALOUSE RIVER NEAR POTLATCH, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.
REMARKS.--Miscellaneous chemical data published for water year 1977. May 21, 22 samples taken after Mt. St. Helens May 18, 1980, eruption and ashfall.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT
NOV												
19...	1045	48	70	8.1	6.5	4.0	25	0	7.3	1.6	3.9	29
MAY												
21...	0930	73	126	8.1	17.0	16.5	37	15	11	2.3	6.5	24
22...	1600	74	106	7.6	8.0	14.0	35	7	10	2.4	5.5	24
JUN												
17...	1340	224	71	7.2	17.5	17.0	21	1	6.1	1.5	3.5	24

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
NOV												
19...	.3	1.9	--	--	7.9	1.8	.0	19	--	64	.09	9.04
MAY												
21...	.5	2.0	22	--	15	7.9	.2	24	93	83	.13	18.3
22...	.4	1.9	28	1.2	12	5.2	.2	24	87	79	.12	17.4
JUN												
17...	.3	1.7	20	--	10	.3	.1	22	--	58	.08	35.1

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)
NOV								
19...	--	.12	--	--	--	--	--	--
MAY								
21...	.09	.09	.100	.070	.12	.09	1.0	.31
22...	.11	.10	.100	.060	.12	.08	.63	.28
JUN								
17...	--	.06	--	--	--	--	--	--

DATE	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS PO4)
NOV								
19...	--	--	--	--	--	.140	--	.43
MAY								
21...	1.1	.72	.38	1.2	5.3	.160	.100	.49
22...	.73	.39	.34	.84	3.7	.140	.020	.43
JUN								
17...	--	--	--	--	--	.270	--	.83

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	GROSS ALPHA, DIS-SOLVED (PCI/L AS U-NAT)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)
MAY				
21...	4.7	<.5	5.2	1.6
22...	1.8	.5	3.0	2.4

13345000 PALOUSE RIVER NEAR POTLATCH, ID--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, SUSPENDED RECOV. (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, TOTAL (UG/L AS SB)	ANTIMONY, SUSPENDED TOTAL (UG/L AS SB)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)
MAY												
21...	4200	4100	130	0	0	0	3	2	1	<100	0	* 30
22...	980	920	<100	0	0	0	1	0	1	100	70	* 30

DATE	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	BORON, SUSPENDED RECOVERABLE (UG/L AS B)	BORON, DISSOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, SUSPENDED RECOVERABLE (UG/L AS CO)
MAY												
21...	<1	<100	20	<100	1	1	* 0	0	0	0	<5	0
22...	<1	<100	0	<100	1	0	* 1	0	0	0	<5	--

DATE	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)
MAY											
21...	* <5	16	10	* <10	2600	2500	140	7	7	* 0	10
22...	* <5	23	14	* <10	1700	1500	180	7	2	* <10	<10

DATE	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)
MAY											
21...	* <10	170	50	* 120	<1.0	.0	.0	<10	<10	1	<10
22...	* <10	140	20	* 120	<1.0	.0	.0	<10	<10	5	<10

DATE	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
MAY											
21...	0	0	0	0	0	0	60	<6.0	<50	20	* <5
22...	0	0	0	0	0	0	60	<6.0	<50	20	* 6

SUSPENDED-SEDIMENT DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
MAY			
21...	73	288	57
22...	74	122	24

* The inductively coupled plasma atomic-emission spectroscopy analytical method was used.

13346800 PARADISE CREEK AT UNIVERSITY OF IDAHO AT MOSCOW, ID

LOCATION.--Lat 46°43'55", long 117°01'24", in NW¼NE¼SE¼ sec.12, T.39 N., R.6 W., Latah County, Hydrologic Unit 17060108, on left bank 36 ft (11.0 m) upstream fron county road crossing at northwest end of University of Idaho playing field, 0.6 mi (1.0 km) upstream from Idaho-Washington State line, and 7.0 mi (11.3 km) upstream from mouth.

DRAINAGE AREA.--17.7 mi^2 (45.8 km^2).

PERIOD OF RECORD.--October 1978 to current year. Prior to October 1979, published as "at Moscow."

GAGE.--Water-stage recorder. Datum of gage is 2,543.46 ft (775.247 m) National Geodetic Vertical Datum of 1929 (levels by University of Idaho Engineering Dept.).

REMARKS.--Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 430 ft^3/s (12.2 m^3/s) Feb. 26, 1979, gage height, 7.96 ft (2.426 m). Minimum discharge, 0.10 ft^3/s (2.83 dm^3/s) Nov. 27, 28, 1978, July 30, Aug. 16, 17, 1980; minimum gage height 3.47 ft (1.058 m) Nov. 27, 28, 1978.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge measured, 900 ft^3/s (25.5 m^3/s) Jan. 21, 1972, gage height, 9.87 ft (3.008 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 250 ft^3/s (7.08 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 3	1615	265	7.50	6.91	2.106	Feb. 18	0515	*424	12.0	7.85	2.393

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 30, Jan. 9)

3.47	0.08	3.80	3.8	5.0	56
3.50	.16	3.90	5.8	5.5	94
3.55	.40	4.0	8.2	6.0	140
3.60	.85	4.2	14	7.0	267
3.65	1.5	4.5	27	8.0	437
3.70	2.2				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.18	.30	.62	6.2	1.1	9.8	9.0	2.7	5.7	.62	.24	2.9
2	.21	.36	12	6.0	15	8.7	7.6	2.4	4.7	.47	.20	.85
3	.23	.27	9.0	5.1	95	11	6.6	2.1	3.7	.40	.17	.48
4	.24	1.3	18	4.0	21	15	6.4	1.9	3.4	.62	.20	.20
5	.23	.92	7.9	4.9	12	15	6.9	1.1	3.1	.40	.20	.20
6	.20	.41	3.8	1.9	12	13	7.1	3.6	2.9	.34	.20	.20
7	.17	.85	2.7	1.4	15	11	6.0	1.5	2.4	.34	.24	.17
8	.23	.65	1.9	1.1	11	18	5.3	1.2	2.0	.40	.24	.20
9	.22	.29	2.2	1.1	8.9	16	11	6.0	2.0	.28	.17	.17
10	.21	.26	1.8	1.1	7.6	13	7.1	3.9	1.6	3.7	.17	.17
11	.23	.26	1.2	1.2	5.8	19	5.5	1.9	1.5	.47	.24	.20
12	.21	.31	.62	12	4.4	14	4.7	1.2	5.7	.47	.24	.20
13	.15	.32	.62	17	4.0	21	4.5	.67	3.6	.47	.28	4.0
14	.14	.30	.62	34	3.2	39	4.4	.66	2.5	.54	.24	.97
15	1.8	.28	2.8	28	4.0	20	4.4	9.4	3.6	.28	.28	.84
16	.26	1.1	2.1	21	4.2	16	4.0	3.6	2.0	.28	.17	.20
17	.22	8.9	2.2	25	21	16	3.7	1.7	2.0	.34	.14	.20
18	2.8	6.9	2.1	17	137	16	3.5	1.3	1.2	.28	1.1	.17
19	7.3	1.4	1.2	10	30	12	3.2	1.7	1.0	.24	.28	.20
20	1.6	.62	.97	6.4	30	16	3.2	2.4	.80	.24	.20	1.5
21	1.6	.40	.73	4.9	20	17	3.7	2.9	.67	.40	.28	.28
22	.86	.40	.54	4.2	16	12	3.2	3.7	2.5	.28	.24	.24
23	1.9	4.2	.54	3.8	13	10	3.0	1.9	1.6	.24	.24	.17
24	.81	2.4	.54	3.8	11	8.2	2.8	2.1	.88	.34	.20	.20
25	5.9	1.6	3.5	3.7	10	7.9	2.7	10	.61	.34	.24	.20
26	1.8	.97	1.2	2.8	13	9.3	2.4	32	1.1	.28	.20	.20
27	.59	.62	.97	1.5	12	13	2.2	12	.73	.24	.99	.20
28	.83	.54	.73	1.2	16	10	2.2	8.2	.62	.34	.24	.20
29	.51	.40	.54	.97	12	9.3	5.5	6.8	.62	.24	.24	.24
30	.36	.50	.62	.73	---	14	3.5	6.2	.54	.20	.20	.40
31	.41	---	1.2	.73	---	12	---	4.9	---	.24	2.2	---
TOTAL	32.40	38.03	85.46	232.73	565.2	442.2	145.3	141.63	65.27	14.32	10.47	16.35
MEAN	1.05	1.27	2.76	7.51	19.5	14.3	4.84	4.57	2.18	.46	.34	.55
MAX	7.3	8.9	18	34	137	39	11	32	5.7	3.7	2.2	4.0
MIN	.14	.26	.54	.73	1.1	7.9	2.2	.66	.54	.20	.14	.17
AC-FT	64	75	170	462	1120	877	288	281	129	28	21	32

CAL YR 1979 TOTAL 3210.03 MEAN 8.79 MAX 315 MIN .14 AC-FT 6370
WTR YR 1980 TOTAL 1789.36 MEAN 4.89 MAX 137 MIN .14 AC-FT 3550

13350448 COW CREEK AT GENESEE, ID

LOCATION.--Lat 46°32'48", long 116°55'37" in SW¼NW¼SE¼, sec.14, T.37 N., R.5 W., Latah County, Hydrologic Unit 17060108 on upstream side of county road bridge 0.2 mi (0.32 km) south of main road through Genesee, 0.7 mi (1.13 km) upstream from Genesee sewage disposal facilities and 1.2 mi (1.93 km) upstream from U.S. Highway 95.

DRAINAGE AREA.--34.3 mi² (88.8 km²).

PERIOD OF RECORD.--October 1979 to September 1980. No prior record at this site.

GAGE.--Wire-weight gage mounted on upstream guardrail and crest-stage gage on upstream left wingwall to record peaks. Altitude of gage is 2,660 ft (811 m), from topographic map.

REMARKS.--Records poor.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 66 ft³/s (1.87 m³/s) Feb. 19, gage height, 12.90 ft (3.932 m); minimum, zero flow for many days.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1 to Nov. 17; stage-discharge relation affected by ice Nov. 27 to Dec. 3, Dec. 9-15, Dec. 28 to Jan. 16, Jan. 19 to Feb. 3, Feb. 11-16)

9.05	0.008	9.28	1.5
9.06	.016	9.4	2.6
9.07	.031	9.6	4.6
9.08	.051	10.0	9.5
9.10	.12	10.5	17
9.12	.21	11.4	33
9.15	.40	12.6	59
9.20	.82		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.02	.33	2.5	1.2	7.0	4.0	1.9	2.7	.73	.01	.00
2	.00	.02	2.5	2.5	1.5	7.0	3.7	3.0	2.3	.56	.01	.00
3	.00	.00	7.5	2.3	4.6	6.8	3.5	2.8	2.2	.56	.00	.00
4	.00	.02	24	2.0	13	7.4	3.5	2.2	2.1	.48	.00	.00
5	.00	.27	23	1.7	9.1	6.8	3.5	1.6	1.8	.48	.00	.00
6	.00	.16	23	1.4	6.6	5.6	3.5	2.1	1.8	.48	.00	.00
7	.00	.16	22	1.3	7.8	6.2	3.0	1.6	1.6	.48	.00	.00
8	.00	.02	4.4	1.3	6.6	6.2	3.0	1.9	1.6	.48	.00	.00
9	.00	.02	3.8	1.3	6.6	6.2	3.5	2.5	1.5	.33	.00	.00
10	.00	.08	3.4	1.4	3.8	6.2	3.5	2.8	1.5	1.0	.00	.00
11	.08	.03	3.3	1.5	3.4	5.6	3.5	2.2	1.2	.73	.00	.00
12	.21	.03	3.2	1.8	3.2	4.5	3.5	2.1	1.6	.73	.00	.00
13	.05	.03	3.2	2.9	3.1	11	3.2	2.7	2.3	.56	.00	.00
14	.00	.03	3.2	4.5	3.0	16	3.0	3.0	2.1	.56	.00	.00
15	.00	.03	3.2	6.6	3.1	7.4	2.8	3.0	1.8	.73	.00	.08
16	.01	1.5	3.9	10	3.2	6.2	2.5	3.7	1.6	.73	.00	.08
17	.00	3.3	4.3	15	3.7	5.6	2.5	3.7	1.6	.56	.00	.01
18	.01	4.7	5.4	11	49	5.6	2.5	3.7	1.4	.40	.00	.00
19	.82	4.8	4.8	4.5	56	5.1	2.5	2.1	1.3	.33	.00	.02
20	.56	4.3	4.3	2.4	27	5.1	2.5	1.6	1.2	.27	.00	.40
21	.12	4.6	3.8	1.9	17	5.1	1.7	1.6	1.1	.27	.00	.40
22	.12	4.6	3.3	1.7	11	5.1	1.7	2.1	1.1	.21	.00	.08
23	.91	7.0	3.3	1.5	4.1	4.5	1.8	1.8	1.2	.16	.00	.02
24	.08	7.0	3.3	1.3	6.4	4.0	1.7	1.6	1.1	.12	.00	.02
25	.16	4.6	3.0	1.2	7.6	4.0	1.6	4.5	1.1	.08	.00	.03
26	.03	4.0	3.3	1.1	11	3.8	1.6	6.1	.91	.08	.00	.01
27	.27	2.3	2.7	1.0	8.8	5.9	1.6	3.5	.82	.08	.00	.01
28	.02	1.3	2.4	.98	13	4.7	1.7	2.7	.91	.05	.00	.01
29	.21	.80	2.3	.98	7.6	4.5	1.9	2.7	.91	.02	.00	.00
30	.03	.50	2.3	1.0	---	4.8	1.8	2.5	.91	.02	.00	.00
31	.02	---	2.4	1.1	---	5.1	---	2.5	---	.01	.00	---
TOTAL	3.71	56.22	184.83	91.66	302.0	189.0	80.3	81.8	45.26	12.28	.02	1.17
MEAN	.12	1.87	5.96	2.96	10.4	6.10	2.68	2.64	1.51	.40	.001	.039
MAX	.91	7.0	24	15	56	16	4.0	6.1	2.7	1.0	.01	.40
MIN	.00	.00	.33	.98	1.2	3.8	1.6	1.6	.82	.01	.00	.00
AC-FT	7.4	112	367	182	599	375	159	162	90	24	.04	2.3

WTR YR 1980 TOTAL 1048.25 MEAN 2.86 MAX 56 MIN .00 AC-FT 2080

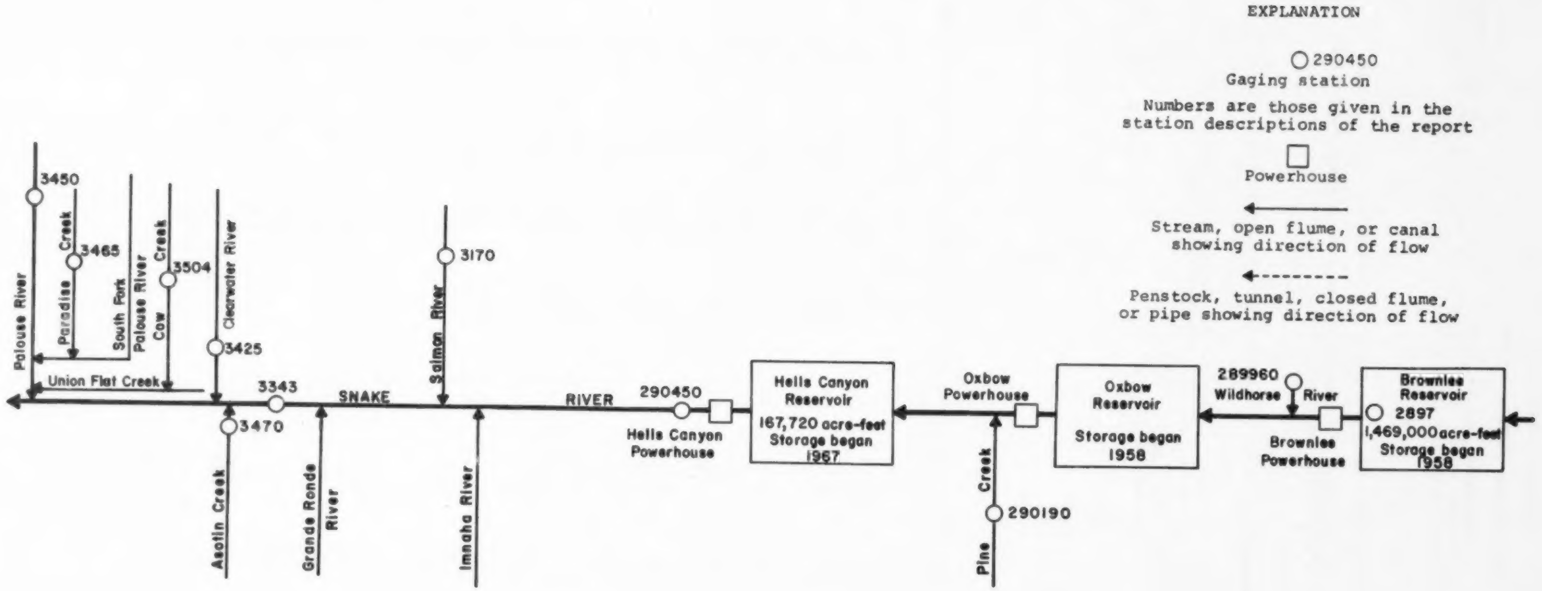

FIGURE 17.--Gaging stations in Snake River basin between Brownlee Reservoir and the mouth of the Palouse River.

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are generally presented in two tables. A table of annual maximum stage and discharge at crest-stage stations is given first, followed by a table of measurements made at miscellaneous sites.

Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained but is not published herein. Measurements made to rate the crest-stage stations are given in the list of miscellaneous measurements. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest-stage partial-record stations during water year 1980

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft^3/s)
		Kootenai River basin					
12305500	Boulder Creek near Leonia	Lat 48°35'54", long 116°05'30', in NE¼ sec.32, T. 61 N., R.3 E., Boundary County, Kaniksu National Forest, 0.8 mi (1.3 km) downstream from McGinty Creek 2.5 mi (4.0 km) southwest of Leonia, and at mile 2.8 (4.5 km).	a56	1928-71‡, 1973-77‡, 1978-80	4-29-80	5.41	1,280
12310800	Trail Creek at Naples	Lat 48°34'28", long 116°23'20", in SW¼SW¼ sec.6, T.60 N., R.1 E., Boundary County, at culvert crossing of Spokane International Railroad and 0.2 mi (0.3 km) north of Naples School.	a16.1	1961-71, 1973-80	4-29-80	8.11	127
		Pend Oreille River basin					
12392100	Trapper Creek near Clark Fork	Lat 48°15'57", long 116°07'00", in NE¼ sec.30, T. 57 N., R.3 E., Bonner County, at forest road and 9.8 mi (15.8 km) north of Clark Fork.	1.12	1961-80	4-29-80	14.31	34
12393600	Binarch Creek near Coolin	Lat 48°28'10", long 116°55'20", in NE¼ sec.13, T. 59 N., R.5 W., Bonner County, at State Highway 57 and 3 mi (4.8 km) west of Coolin.	10.7	1962-71, 1973-80	4-29-80	11.64	51
		Spokane River basin					
12413100	Boulder Creek at Mullan	Lat 47°28'08", long 115°47'40", in NE¼SE¼NE¼ sec. 34, T.48 N., R.5 E., Shoshone County, at U.S. Highway I-90 crossing in Mullan.	3.13	1961-71, 1973-80	5-27-80	12.47	120
12413700	Latour Creek near Cataldo	Lat 47°28'10", long 116°26'15", in NE¼ sec.34, T. 48 N., R.1 W., Kootenai County, at BLM road bridge, 0.4 mi (0.6 km) upstream from Baldy Creek, at mile 6.5 (10.5 km), and 7.8 mi (12.6 km) southwest of Cataldo.	24.8	1961-71‡, 1973-80	4-29-80	6.17	335
12414400	East Fork Big Creek near Calder	Lat 47°18'07", long 116°07'05", in SW¼NE¼SE¼ sec. 30, T.48 N., R.3 E., Shoshone County, at road bridge and 3.7 mi (6.0 km) northeast of Calder.	15.4	1973-80	4-29-80	10.12	320
12415200	Plummer Creek tributary at Plummer	Lat 47°20'20", long 116°53'14", in SW¼ sec.7, T. 46 N., R.4 S., Benewah County, at U.S. Highway 95 and 0.2 mi (0.3 km) north of Plummer.	2.10	1961-80	4-29-80	9.83	55
		Little Canyon Creek basin					
13155300	Little Canyon Creek at Stout Crossing, near Glenns Ferry	Lat 43°09'14", long 115°18'32", in NE¼NW¼NE¼ sec. 19, T.3 S., R.10 E., Elmore County, on left bank at county road crossing and 13.8 mi (22.2 km) north of Glenns Ferry.	14.2	1961-65, 1966-71‡, 1973-80	4-22-80	3.98	80
		Sailor Creek basin					
13157005	Pot Hole Creek tributary near Winter Camp Butte	Lat 42°36'30", long 115°21'25", in SE¼ sec.26, T. 9 S., R.9 E., Owyhee County, at road crossing and 4.4 mi (7.1 km) east of Winter Camp Butte.	5.73	1973-80	2-19-80	1.63	a<1.0
		Bruneau River basin					
13170100	Sugar Creek tributary near Grasmere	Lat 42°33'49", long 115°54'25", in NE¼ sec.18, T. 10 S., R.5 E., Owyhee County, at State Highway 51 crossing and 13.5 mi (21.7 km) north of Grasmere.	4.50	1961-80	--	--	(b)
13170200	Sugar Creek near Bruneau	Lat 42°40'36", long 115°53'30", in NW¼SW¼NE¼ sec. 5, T.9 S., R.5 E., Owyhee County, at road crossing and 15 mi (24 km) south of Bruneau.	33.6	1973-80	--	--	(b)

See footnotes at end of table, p.

Annual maximum discharge at crest-stage partial-record stations during water year 1980

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft³/s)
		Poison Creek basin					
13171700	Poison Creek near Grand View	Lat 42°45'05", long 116°18'20", in SE¼ sec.2, T.8 S., R.1 E., Owyhee County, at road crossing 16.5 mi (26.5 km) east of Triangle and 19.5 mi (31.4 km) southwest of Grand View.	11.6	1973-80	1-14-80	11.50	9
		Fossil Creek basin					
13172200	Fossil Creek near Oreana	Lat 43°05'37", long 116°26'27", in SW¼NE¼NW¼ sec. 10, T.4 S., R.1 W., Owyhee County, 670 ft (204 m) downstream from Murphy-Grand View road crossing and 4 mi (6.4 km) northwest of Oreana.	19.7	1961-71, 1974-80	1-12-80	2.90	430
		Squaw Creek basin					
13172800	Little Squaw Creek tributary near Marsing	Lat 43°21'50", long 116°55'17", in SW¼ sec.3, T.1 S., R.5 W., Owyhee County, at U.S. Highway 95 and 14 mi (23 km) southwest of Marsing.	1.81	1961-71, 1973-80	1-12-80	6.94	14
		Owyhee River basin					
13176100	Blue Creek near Grasmere	Lat 42°27'29", long 116°15'03", in NE¼NW¼ sec.20, T.11 S., R.2 E., Owyhee County, at road crossing and 19 mi (30 km) northwest of Grasmere.	24.0	1975-80	2-20-80	7.73	150
		Boise River basin					
13184200	Roaring River near Rocky Bar	Lat 43°42'20", long 115°27'50", in sec.2, T.4 N., R.8 E., Elmore County, 6 mi (10 km) upstream from mouth and 9 mi (14 km) northwest of Rocky Bar.	23.3	1958, 1963-71, 1973-80	5-23-80	16.29	275
13204800	Cottonwood Creek near Boise	Lat 43°36'59", long 116°09'30", in NE¼SE¼NW¼NE¼ sec.12, T.3 N., R.2 E., Ada County, at Shaw Mountain Road crossing, at confluence of left bank unnamed tributary, 0.8 mi (1.3 km) downstream from Picket Pin Creek, and 2.0 mi (3.2 km) east of State Capitol Building in Boise.	11.7	1959, 1973-80	5-20-80	7.66	101
13210300	Bryans Run near Boise	Lat 43°27'02", long 116°04'08", in NE¼NW¼ sec.11, T.1 N., R.3 E., Ada County, at U.S. Highway 30 crossing and 15 mi (24 km) southeast of Boise.	7.94	1961-80	2-21-80	9.87	14
13211345	Indian Creek at Lone Tree Lane crossing, near Nampa	Lat 43°38'03", long 116°38'11", in SE¼SE¼SW¼ sec. 36, T.4 N., R.3 W., Canyon County, 3.2 mi (5.1 km) west of Karcher Junction.	-	1979-80	2-18-80	--	c97.1 - 197
		Payette River basin					
13234300	Fivemile Creek near Lowman	Lat 44°06'20", long 115°27'30", in NE¼ sec.24, T. 9 N., R.8 E., Boise County, at State Highway 21 crossing and 8.5 mi (13.7 km) east of Lowman.	a7.8	1961-71, 1973-80	5-23-80	17.63	130
13245400	Tripod Creek at Smiths Ferry	Lat 44°17'55", long 116°05'17", in SW¼ sec.10, T. 11 N., R.3 E., Valley County, at State Highway 15 at Smiths Ferry.	8.63	1961-71, 1973-80	4-24-80	6.95	185
13248900	Cottonwood Creek near Horseshoe Bend	Lat 43°53'35", long 116°12'09", in NW¼NE¼ sec.3, T.6 N., R.2 E., Boise County, at Harris Creek road and 1.5 mi (2.4 km) south of Horseshoe Bend.	6.53	1961-71, 1973-80	1-12-80	15.14	203
13248970	Johnson Creek near Montour	Lat 43°55'08", long 116°21'21", in NW¼SE¼NE¼ sec. 29, T.7 N., R.1 E., Gem County, at county road crossing, 0.2 mi (0.3 km) upstream from mouth, 1.4 mi (2.7 km) west of Montour, and 7.8 mi (12.5 km) northeast of Emmett.	3.44	1974-80	2-18-80	5.06	88
		Weiser River basin					
13261670	Dixie Creek near Cambridge	Lat 44°29'56", long 116°36'26", in NW¼NE¼NW¼ sec. 5, T.13 N., R.2 W., Washington County, at section line road crossing, 4.4 mi (7.1 km) upstream from mouth, 5.1 mi (8.2 km) southeast of Cambridge, and 5.5 mi (8.8 km) east of Midvale.	10.9	1973-80	2-19-80	15.66	235
		Salmon River basin					
13301700	Morse Creek above diversions, near May	Lat 44°36'55", long 113°48'25", in SW¼ sec.24, T. 15 N., R.22 E., Custer County, 0.6 mi (1.0 km) upstream from mouth of canyon and 5.2 mi (8.4 km) east of May.	18.0	1962-80	6-20-80	--	c27 - 150
13305800	Hughes Creek near North Fork	Lat 45°31'12", long 114°01'59", in SW¼NE¼SW¼ sec. 6, T.25 N., R.21 E., Lemhi County, just upstream from West Fork Hughes Creek and Allen Creek and 8.0 mi (13 km) northwest of North Fork.	15.7	1962-80	5-24-80	-	c55 - 112

Annual maximum discharge at crest-stage partial-record stations during water year 1980

Station No.	Station Name	Location	Drainage area (mi²)	Period of record	Annual maximum Date	Annual maximum Gage height (feet)	Annual maximum Discharge (ft³/s)
		Clearwater River basin					
13336450	Rackcliff Creek at O'Hara guard station	Lat 46°05'05", long 115°29'38" (unsurveyed), Idaho County, in Rackcliff campground, 1.5 mi (2.4 km) east of O'Hara youth camp, and 8.1 mi (13.0 km) east of Lowell.	8.44	1924, 1973-80	4-29-80	25.68	45
13337540	Legget Creek near Golden	Lat 45°49'36", long 115°37'35" (unsurveyed), Idaho County, at mouth, at State Highway 14 crossing, 2.8 mi (4.5 km) northeast of Golden, and 13 mi (20.9 km) west of Elk City.	7.78	1973-80	5-26-80	18.86	220
13339700	Canal Gulch Creek at Pierce ranger station	Lat 46°29'50", long 115°47'30", in NW¼ sec.2, T. 36 N., R.5 E., Clearwater County, at Pierce ranger station and 0.5 mi (0.8 km) north of Pierce.	5.9	1961-71, 1973-80	5-26-80	14.31	170
13339900	Deer Creek near Orofino	Lat 46°29'30", long 116°10'30", in SW¼ sec.3, T. 36 N., R.2 E., Clearwater County, at dirt road crossing and 3.0 mi (4.8 km) east of Orofino.	a6.8	1962-80	5-26-80	7.74	74
13341100	Cold Springs Creek near Craigmont	Lat 46°14'10", long 116°31'06", in NE¼ sec.1, T. 33 N., R.2 W., Lewis County, at U.S. Highway 95 crossing and 2.7 mi (4.3 km) west of Craigmont.	8.07	1961-65, 1967-71, 1975-80	2-19-80	13.04	42
13343010	Lindsay Creek tributary No. 4 near Lewiston	Lat 46°22'10", long 116°53'28", in NE¼NW¼NW¼ sec. 19, T.35 N., R.4 W., Nez Perce County, at road crossing, 1.5 mi (2.4 km) east of Lewiston Orchards, and 6 mi (10 km) southeast of Lewiston.	2.96	1973-80	2-12-80	11.12	32
		Palouse River basin					
13344800	Deep Creek near Potlatch	Lat 46°57'38", long 116°56'04", in SW¼ sec.23, T. 42 N., R.5 W., Latah County, at county road crossing and 3.3 mi (5.3 km) northwest of Potlatch.	36.6	1961-80	5-26-80	15.02	1,300
13346750	Paradise Creek at Moscow	Lat 46°43'27", long 116°58'45", in SW¼SW¼NW¼ sec. 16, T.39 N., R.5 W., Latah County, on Mountain View Avenue at the southeast edge of Moscow.	14.0	1973-80	2-18-80	11.73	295

‡ Operated as a continuous-record gaging station.
a Estimated.
b No evidence of flow during year.
c Known to be greater than first figure but less than second.

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in a low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. Discharge measurements made at miscellaneous sites for both high and low flow are given in a third table.

Low-flow partial-record stations

Measurements of streamflow in the area covered by this report made at low-flow partial-record stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with simultaneous discharge of a nearby stream where continuous records are available, will give a picture of the low-flow potentiality of the stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same, site.

Discharge measurements made at low-flow partial-record stations during water year 1980

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Kootenai River basin				
12310800	Trail Creek at Naples	Lat 48°34'28", long 116°23'20", in SW¼SW¼ sec.6, T.60 N., R.1 E., Boundary County, at railroad culvert, 0.4 mi (0.6 km) upstream from mouth, and at Naples.	a16	1961-71b. 1973-78b, 1980	10- 3-79	0
		Pend Oreille River basin				
12392350	Grouse Creek near Colburn	Lat 48°20'36", long 116°26'10", in NE¼NW¼SW¼ sec.2, T.58 N., R.1 W., Bonner County, 2.0 mi (3.2 km) upstream from mouth and 4.0 mi (6.4 km) east of Colburn.	55.6	1958-65, 1974-76, 1978,1980	10- 3-79	7.62
12392450	Rapid Lightning Creek near Colburn	Lat 48°21'55", long 116°24'05", in SE¼SW¼NE¼ sec.24, T.58 N., R.1 W., Bonner County, 0.3 mi (0.5 km) upstream from mouth and 6.0 mi (9.6 km) southeast of Colburn.	-	1958-65, 1974-78, 1980	10- 3-79	10.4
12393600	Binarch Creek near Coolin	Lat 48°28'10", long 116°55'20", in NE¼ sec.13, T. 59 N., R.5 W., Bonner County, Kaniksu National Forest, at State Highway 57 crossing and 3 mi (4.8 km) west of Coolin.	10.7	1962-71b, 1973, 1975-78b, 1980	10- 3-79	2.15
		Spokane River basin				
12413100	Boulder Creek at Mullan	Lat 47°28'10", long 115°47'44", in NE¼SE¼NE¼ sec. 34, T.48 N., R.5 E., Shoshone County, at alley crossing and 150 ft (46 m) upstream from U.S. Highway 10 crossing in Mullan.	3.13	1961-71b, 1973-78, 1980	10-10-79	.28
12413200	Montgomery Creek near Kellogg	Lat 47°33'10", long 116°04'17", in SE¼NE¼ sec.33, T.49 N., R.3 E., Shoshone County, Coeur d'Alene National Forest, at forest road crossing and 2.5 mi (4.0 km) northeast of Kellogg.	4.53	1962-71b, 1973-78, 1980	10- 9-79	.96
12413400	West Fork Pine Creek near Pinehurst	Lat 47°25'30", long 116°17'50", in NE¼NW¼ sec.14, T.47 N., R.1 E., Shoshone County, Bureau of Land Management land, on left bank 200 ft (61 m) south of BLM road, 1.0 mi (1.6 km) upstream from Middle Fork, 8.5 mi (13.6 km) southwest of Pinehurst, and at mile 9.5 (14.6 km).	10.8	1966-71‡, 1974-78, 1980	10- 9-79	0
12413700	Latour Creek near Cataldo	Lat 47°28'10", long 116°26'15", in NE¼ sec.34, T. 48 N., R.1 W., Kootenai County, 5 ft (1.5 m) upstream from BLM road bridge, 0.4 mi (0.6 km) upstream from Baldy Creek, at mile 6.5 (10.5 km), and 7.8 mi (12.6 km) southwest of Cataldo.	24.8	1967-71‡, 1973, 1975-78, 1980	10- 9-79	4.04
12413900	St. Joe River above North Fork St. Joe River, near Avery	Lat 47°14'29", long 115°45'20", near line between sec.13, T.45 N., R.5 E., and sec.18, T.45 N., R.6 E., Shoshone County, St. Joe National Forest, 2.5 mi (4.0 km) southeast of Avery, 2.6 mi (4.2 km) upstream from North Fork St. Joe River, and at mile 68.4 (109.4).	472	1911-17‡, 1948, 1974-78, 1980	10-10-79	153
12415100	Cherry Creek near St. Maries	Lat 47°19'00", long 116°36'47", in SE¼SW¼SE¼ sec. 20, T.46 N., R.2 W., Benewah County, 80 ft (24.4 m) upstream from State Highway 5 crossing and 2.0 mi (3.2 km) west of St. Maries.	7.07	1961-71b, 1972, 1974-78, 1980	10-10-79	.05
12415200	Plummer Creek tributary at Plummer	Lat 47°20'20", long 116°53'14", in NW¼SE¼SW¼ sec. 7, T.46 N., R.4 W., Benewah County, at State Highway 5 crossing and 0.2 mi (0.3 km) north of Plummer.	2.10	1961-72b, 1974-78b, 1980	10-10-79 9-25-80	0 0
		Little Canyon Creek basin				
13155300	Little Canyon Creek at Stout crossing, near Glenns Ferry	Lat 43°09'14", long 115°18'22", in NE¼NW¼NE¼ sec. 19, T.3 S., R.10 E., Elmore County, on left bank, at county road crossing, and 13.8 mi (22.2 km) north of Glenns Ferry.	14.2	1961-65, 1966-71‡, 1973-78b, 1980	10- 5-79	.24

See footnotes at end of table, p.

Discharge measurements made at low-flow partial-record stations during water year 1980

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Bruneau River basin				
13162300	Jarbidge River near Murphy Hot Springs	Lat 42°00'30", long 115°25'00", in sec.28, T.16 S., R.9 E., Owyhee County, at Buck Creek bridge and 3 mi (4.8 km) southwest of Murphy Hot Springs.	-	1961-66b, 1973, 1975-76, 1978,1980	10-12-79	9.29
13162500	East Fork Jarbidge River near Three Creek	Lat 42°02'00", long 115°22'20", in SE¼SE¼ sec.14, T.16 S., R.9 E., Owhyee County, on left bank 0.2 mi (0.3 km) downstream from Murphy Hot Springs, 2.0 mi (3.2 km) upstream from mouth, and 11 mi (17.6 km) southwest of Three Creek.	84.6	1928-33‡, 1953-71‡, 1974-78, 1980	10-12-79	10.8
		Sinker Creek basin				
13172290	Sinker Creek above Scotch Bob Creek, near Murphy	Lat 43°03'52", long 116°38'03", in NW¼SE¼NE¼ sec. 24, T.4 S., R.3 W., Owyhee County, at Silver City road crossing, 50 ft (15 m) upstream from Scotch Bob Creek, 6 mi (10 km) northeast of Silver City, and 11.2 mi (18.0 km) southwest of Murphy.	-	1975-78, 1980	10- 4-79	.01
		Boise River basin				
13184800	Beaver Creek near Lowman	Lat 43°58'20", long 115°36'30", in SE¼ sec.3, T.7 N., R.7 E., Boise County, at State Highway 21 junction with road to Beaver Creek guard station and 7.5 mi (12.1 km) south of Lowman.	a9.3	1962-71b, 1975-78, 1980	10- 2-79	2.29
13184955	Sheep Creek at mouth, near Twin Springs	Lat 43°41'45", long 115°39'38", in sec.7, T.4 N., R.7 E., Boise County, 200 ft (60 m) upstream from mouth and 2.5 mi (4.0 km) northeast of Twin Springs.	-	1975-78	10- 2-79	11.7
13199800	Grimes Creek near Idaho City	Lat 43°43'36", long 115°57'09", in SW¼SW¼NW¼ sec. 35, T.5 N., R.4 E., Boise County, 200 ft (61 m) upstream from mouth and 9 mi (14.5 km) southwest of Idaho City.	-	1973, 1975-78, 1980	10- 2-79	13.2
		Payette River basin				
13234500	Clear Creek at Lowman	Lat 44°04'55", long 115°36'40", in SW¼SE¼ sec.27, T.9 N., R.7 E., Boise County, Boise National Forest, at State Highway 21 bridge in Lowman and 550 ft (168 m) upstream from mouth.	59.6	1921-22, 1925, 1941-45‡, 1973, 1975-78, 1980	10- 3-79	28.9
13235100	Rock Creek near Lowman	Lat 44°04'50", long 115°37'30", in NE¼ sec.33, T.9 N., R.7 E., Boise County, Boise National Forest, at road bridge and 0.5 mi (0.8 km) west of Lowman.	14.6	1961-71b, 1973, 1975-78, 1980	10- 2-79	5.48
13237300	Danskin Creek near Grimes Pass	Lat 44°03'36", long 115°49'06", in NW¼ sec.1, T.8 N., R.5 E., Boise County, Boise National Forest, at Banks-Lowman road crossing and 2 mi (3.2 km) northeast of Grimes Pass.	10.1	1961-71b, 1973-78, 1980	10- 2-79	1.48
13237600	Cabin Creek near Smiths Ferry	Lat 44°20'53", long 115°47'21", in NE¼SE¼NW¼ sec. 30, T.12 N., R.6 E., Valley County, Boise National Forest, 0.2 mi (0.3 km) upstream from mouth, 1.2 mi (1.9 km) downstream from Silver Creek guard station, and 13 mi (20.9 km) east of Smiths Ferry.	.42	1960-67‡, 1973-78, 1980	10- 3-79	.09
13247000	Porter Creek near Gardena	Lat 43°56'00", long 116°11'00", in SE¼NW¼NE¼ sec. 14, T.7 N., R.2 E., Boise County, 0.6 mi (1.0 km) upstream from mouth and 2 mi (3.2 km) south of Gardena.	21.2	1938-45‡, 1974-78, 1980	10- 3-79	.30
		Weiser River basin				
13253500	Weiser River at Starkey	Lat 44°51'00", long 116°26'40", in NE¼SW¼ sec.34, T.18 N., R.1 W., Adams County, 200 ft (61 m) upstream from Warm Springs Creek, 8.5 mi (13.7 km) north of Council, and at mile 80.0 (128.7 km).	106	1920,1922, 1939-49‡, 1955, 1973-78, 1980	10- 5-79	14.0
13260000	Pine Creek near Cambridge	Lat 44°35'23", long 116°44'12", in NE¼SE¼SE¼ sec. 31, T.15 N., R.3 W., Washington County, 300 ft (91.5 m) upstream from West Fork Pine Creek, and 3.4 mi (5.4 km) northwest of Cambridge.	54	1938-62‡, 1964-65, 1974-78, 1980	10- 5-79	3.44
13261000	Little Weiser River near Indian Valley	Lat 44°29'22", long 116°23'24", in NW¼SW¼ sec.6, T.13 N., R.1 E., Adams County, at county road crossing, 2,500 ft (760 m) upstream from old gage site, 5.2 mi (8.4 km) southeast of Indian Valley, and at mile 21.5 (34.6 km).	81.9	1920-21‡, 1923-27‡, 1938-71‡, 1973, 1976-78, 1980	10- 5-79	4.47
13263700	Crane Creek above Crane Creek Reservoir, near Midvale	Lat 44°24'16", long 116°31'30", in NW¼SW¼ sec.1, T.12 N., R.2 W., Washington County, 0.1 mi (0.2 km) downstream from county road bridge, 2 mi (3.2 km) northwest of Crane Creek Reservoir, and 11 mi (17.7 km) southwest of Midvale.	a120	1955, 1973-78, 1980	10- 5-79	0

Discharge measurements made at low-flow partial-record stations during water year 1980

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Brownlee Creek basin				
13289600	East Brownlee Creek near Brownlee ranger station	Lat 44°44'08", long 116°50'15", in SE¼NE¼SE¼ sec. 8, T.16 N., R.4 W., Washington County, Payette National Forest, at State Highway 71 crossing and 0.2 mi (0.3 km) west of Brownlee ranger station.	7.97	1962-71b, 1974-78, 1980	10- 5-79	1.57
		Wildhorse River basin				
13289800	Bear Creek near Bear	Lat 44°59'40", long 116°41'00", in NW¼SE¼SE¼ sec. 10, T.19 N., R.3 W., Adams County, Payette National Forest, at forest road crossing and 2.2 mi (3.5 km) south of Bear.	-	1913, 1962-64, 1974-78, 1980	10- 5-79	3.10
		Salmon River basin				
13292500	Salmon River near Obsidian	Lat 43°57'57", long 114°48'01", in SW¼NE¼ sec.3, T.7 N., R.14 E., Custer County, 1 mi (1.6 km) upstream from Lost Creek and 2.5 mi (4.0 km) southeast of Obsidian.	94.7	1940-53‡, 1973, 1975-78, 1980	10- 2-79	48.1
13293800	Salmon River above Redfish Creek, near Stanley	Lat 44°09'50", long 114°53'10", in NE¼ sec.25, T.10 N., R.13 E., Custer County, Sawtooth National Forest, at U.S. Highway 93 crossing and 4.5 mi (7.2 km) southeast of Stanley.	-	1957,1958 1973, 1975-78, 1980	10- 2-79	188
13295000	Valley Creek at Stanley	Lat 44°13'21", long 114°55'49", in SE¼NW¼SW¼ sec. 3, T.10 N., R.13 E., Custer County, at mile 0.2 (0.3 km), 0.5 mi (0.8 km) northeast of Stanley, and 0.8 mi (1.3 km) southwest of Lower Stanley.	147	1910‡, 1911-13‡, 1921-73‡, 1975-78, 1980	10- 4-79	66.1
13297000	Warm Springs Creek at Robinson Bar, near Clayton	Lat 44°14'50", long 114°40'11", in SW¼ sec.27, T. 11 N., R.15 E. (unsurveyed), Custer County, Challis National Forest, 160 ft (25.7 m) upstream from Robinson Bar bridge, 0.6 mi (100 km) upstream from mouth, and 13.7 mi (22.0 km) west of Clayton.	79	1921-23‡, 1971-73, 1975-78, 1980	10- 4-79	44.1
13297500	Big Boulder Creek near Clayton	Lat 44°05'58", long 114°26'24", in SW¼NW¼NE¼ sec. 15, T.9 N., R.17 E., Custer County, at bridge crossing, 0.4 mi (0.6 km) upstream from mouth, and 10 mi (16.1 km) southwest of Clayton.	24.7	1926-30‡, 1971-73, 1976-78, 1980	10- 4-79	10.3
13298400	Bayhorse Creek near Challis	Lat 44°22'53", long 114°15'52", in SE¼SW¼NE¼ sec.7, T.12 N., R.19 E., Custer County, 0.5 mi (0.8 km) upstream from mouth and 9 mi (14.5 km) south of Challis.	-	1973, 1975-78, 1980	10- 4-79	1.01
13298500	Salmon River near Challis	Lat 44°22'43", long 114°15'18", in SE¼SE¼ sec.7, T.12 N., R.19 E., Custer County, 350 ft (76 m) downstream from Bayhorse Creek, 9 mi (14.5 km) south of Challis, and at mile 334.8 (538.7 km).	b1,800	1928-72‡, 1973-77b, 1980	10- 4-79	557
13301700	Morse Creek above diversions, near May	Lat 44°36'55", long 113°48'25", in SW¼ sec.24, T.15 N., R.22 E., Custer County, 0.6 mi (1.0 km) upstream from mouth of canyon and 5.2 mi (8.4 km) east of May.	18.0	1962-71b, 1973-78b, 1980	10- 4-79	6.67
13303000	Texas Creek near Leadore	Lat 44°35'10", long 113°19'45", in NW¼SW¼ sec.35, T.15 N., R.26 E., Lemhi County, 50 ft (15 m) downstream from Nez Perce Creek, 0.5 mi (0.8 km) upstream from county road bridge, and 6.5 mi (10.5 km) south of Leadore.	71.4	1938-39‡, 1955-63‡, 1965,1973, 1975-78, 1980	10- 3-79	9.93
13305800	Hughes Creek near North Fork	Lat 45°31'12", long 114°01'59", in SW¼NE¼SW¼ sec. 6, T.25 N., R.21 E., Lemhi County, just upstream from West Fork Hughes and Allen Creeks and 8.0 mi (13 km) northwest of North Fork.	15.7	1962-78b, 1980	10- 3-79	4.13
13306000	North Fork Salmon River at North Fork	Lat 45°24'26", long 113°59'37", in NW¼SW¼SW¼ sec. 16, T.24 N., R.21 E., Lemhi County, Salmon National Forest, at U.S. Highway 93, 0.1 mi (0.2 km) upstream from mouth, and at North Fork.	214	1928, 1929-39‡, 1973, 1975-78, 1980	10- 3-79	37.0
13306320	Panther Creek at Copper Creek ranger station, near Cobalt	Lat 45°04'07", long 114°16'11", in NE¼NE¼NW¼ sec. 18, T.20 N., R.19 E. (unsurveyed), Lemhi County, Salmon National Forest, at Copper Creek ranger station, 60 ft (18.3 m) downstream from road bridge, 600 ft (183 m) upstream from Copper Creek, about 0.8 mi (1.2 km) upstream from Blackbird Creek, about 2.5 mi (4.0 km) southwest of Blackbird Townsite, and 20 mi (32.2 km) southwest of Salmon.	-	1971,1973, 1975-78, 1980	10- 3-79	70.0

Discharge measurements made at low-flow partial-record stations during water year 1980

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Salmon River basin--Continued				
13307050	Owl Creek near Shoup	Lat 45°19'07", long 114°26'52", in SE¼NW¼ sec.14, T.23 N., R.17 E. (unsurveyed), Lemhi County, Salmon National Forest, at forest road and 9.3 mi (15.0 km) southwest of Shoup.	-	1973, 1975-78, 1980	10- 3-79	8.87
13308500	Middle Fork Salmon River near Cape Horn	Lat 44°24'30", long 115°10'20", in NW¼ sec.3, T. 12 N., R.11 E., Custer County, Challis National Forest, 0.2 mi (0.32 km) downstream from Little Beaver Creek, 0.5 mi (0.8 km) downstream from confluence of Marsh and Beaver Creeks, 2 mi (3.2 km) northwest of Cape Horn, and at mile 110.3 (117.5 km).	138	1928-72‡, 1973, 1975-78, 1980	10- 2-79	70.1
13309000	Bear Valley Creek near Cape Horn	Lat 44°25'44", long 115°17'22", in sec.29, T.13 N., R.10 E., Valley County, Boise National Forest, 250 ft (76.2 m) downstream from Fir Creek, 3 mi (4.8 km) upstream from mouth, and 7 mi (11.3 km) northwest of Cape Horn.	a180	1921-61‡, 1973, 1975-78, 1980	10- 3-79	83.5
13310500	South Fork Salmon River near Knox	Lat 44°39'15", long 115°42'05", in NW¼ sec.11, T.15 N., R.6 E., Valley County, Boise National Forest, 800 ft (244 m) downstream from Curtis Creek, 1 mi (1.6 km) upstream from Warm Lake Creek, 1.5 mi (2.4 km) southwest of Knox, and 21 mi (33.8 km) northeast of Cascade.	a92	1928-61‡, 1973-78, 1980	10- 3-79	31.6
13312500	Johnson Creek near Landmark ranger station	Lat 44°40'56", long 115°32'24", in SW¼NW¼ sec.31, T.16 N., R.8 E., Valley County, Boise National Forest, at Buck Mountain Campground, 0.3 mi (4.8 km) upstream from Lunch Creek, 1.0 mi (1.6 km) downstream from Bobcat Creek, 1.5 mi (2.4 km) north of Landmark ranger station, and 20 mi (32.2 km) south of Yellow Pine.	54.7	1942-49‡, 1973-78, 1980	10- 3-79	10.8
13313500	Secesh River near Burgdorf	Lat 45°13'59", long 115°48'36", in SE¼SE¼NW¼ sec. 23, T.22 N., R.5 E., Idaho County, Payette National Forest, at Warren Wagon Road, 0.9 mi (1.4 km) upstream from Long Gulch, and 5.8 mi (9.3 km) southeast of Burgdorf.	104	1929, 1943-52‡, 1973, 1975-78, 1980	10- 4-79	35.2
13316390	Rapid River above fish hatchery, near Riggins	Lat 45°21'05", long 116°23'52", in SE¼NW¼NE¼ sec. 14, T.23 N., R.1 W., Idaho County, Nez Perce National Forest, 500 ft (168 m) above diversion for Rapid River Fish Hatchery, 0.5 mi (0.8 km) downstream from Thorn Gulch, 0.5 mi (0.8 km) upstream from Shingle Creek, 2.8 mi (4.5 km) upstream from mouth, and 6.0 mi (9.7 km) southwest of Riggins.	-	1973-78, 1980	10- 4-79	71.4
13316600	Slate Creek at mouth, at Slate Creek	Lat 45°38'25", long 116°16'56", in NE¼NW¼NW¼ sec. 36, T.27 N., R.1 E., Idaho County, 200 ft (61 m) upstream from U.S. Highway 95 bridge, 300 ft (91 m) upstream from mouth, 0.2 mi (0.3 km) northwest of Slate Creek, and 8.7 mi (14.0 km) south of White Bird.	127	1948, 1973-78, 1980	10- 4-79	30.0
13317045	White Bird Creek near White Bird	Lat 45°47'23", long 116°15'17", in NE¼SE¼SW¼ sec. 6, T.28 N., R.2 E., Idaho County, at private road crossing, 0.2 mi (0.3 km) upstream from Magpie Gulch, and 3.0 mi (4.8 km) northeast of White Bird.	-	1973-78, 1980	10- 4-79	6.05
		Clearwater River basin				
13336600	Swiftwater Creek near Lowell	Lat 46°06'55", long 115°34'21", in SE¼SE¼NE¼ sec. 16, T.32 N., R.7 E., Idaho County, Nez Perce National Forest, at mouth, at forest road, and 2.5 mi (4.0 km) southeast of Lowell.	6.19	1961-71b, 1973-78, 1980	10- 6-79	2.86
13336650	East Fork Papoose Creek near Powell ranger station	Lat 46°32'07", long 114°45'52", in SE¼SW¼NE¼ sec. 24, T.36 N., R.13 E., Idaho County, Clearwater National Forest, at forest road and 3 mi (4.8 km) northwest of Powell ranger station.	a4.51	1961-71b, 1973-78, 1980	10- 6-79	1.3
13368000	Warm Springs Creek near Powell ranger station	Lat 46°28'20", long 114°53'10", in sec.7, T.36 N., R.13 E. (unsurveyed), Idaho County, Clearwater National Forest, at mouth and 9 mi (14.5 km) west of Powell ranger station.	a74.7	1911,1924, 1956-59‡, 1973-78, 1980	10- 6-79	16.1
13336850	Weir Creek near Powell ranger station	Lat 46°27'31", long 115°02'01", near W¼ cor., sec.13, T.36 N., R.11 E. (unsurveyed), Idaho County, Clearwater National Forest, 200 ft (61 m) upstream from U.S. Highway 12 and 16 mi (26 km) west of Powell ranger station.	a12.2	1961-71b, 1973-78, 1980	10- 6-79	3.81

Discharge measurements made at low-flow partial-record stations during water year 1980

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Measurements	
					Date	Discharge (ft³/s)
		Clearwater River basin--Continued				
13337200	Red Horse Creek near Elk City	Lat 45°47'39", long 115°23'59", in SW¼SW¼NW¼ sec. 6, T.28 N., R.9 E. (unsurveyed), Idaho County, Nez Perce National Forest, 75 ft (23 m) upstream from Elk City-Dixie road and 3.0 mi (4.8 km) southeast of Elk City.	9.13	1961-71b, 1973, 1975-78, 1980	10-13-79	0.75
13337700	Peasley Creek near Golden	Lat 45°49'05", long 115°49'01", in SE¼ sec.27, T.29 N., R.5 E. (unsurveyed), Idaho County, Nez Perce National Forest, at State Highway 14 and 6.6 mi (10.6 km) west of Golden.	14.2	1962-71b, 1973, 1975-78b, 1980	10-13-79	2.0
13338000	South Fork Clearwater River near Grangeville	Lat 45°54'49", long 116°00'17", in SW¼NW¼SE¼ sec. 30, T.30 N., R.4 E., Idaho County, Nez Perce National Forest, at mouth of Schwartz Creek, 300 ft (91 m) downstream from old gage site, 6 mi (10 km) east of Grangeville, and at mile 21.7 (34.9 km).	865	1910-16‡, 1923-63‡, 1973, 1975-76, 1978,1980	10- 7-79	131
13338200	Sally Ann Creek near Stites	Lat 46°00'40", long 115°57'40", in SE¼ sec.21, T.31 N., R.4 E., Idaho County, at State Highway 13 and 5.8 mi (9.3 km) south of Stites.	13.9	1961-71b, 1973, 1975-78, 1980	10- 7-79	.29
13339700	Canal Gulch Creek at Pierce ranger station	Lat 46°29'50", long 115°47'30", in SE¼SE¼NW¼ sec. 2, T.36 N., R.5 E., Clearwater County, at Pierce ranger station and 0.5 mi (0.9 km) north of Pierce.	5.9	1961-71b, 1973-78, 1980	10-13-79	.89
13339900	Deer Creek near Orofino	Lat 46°29'30", long 116°10'30", in SW¼ sec.3, T.36 N., R.2 E., Clearwater County, at dirt road and 3.0 mi (4.8 km) east of Orofino.	a6.8	1962-71b, 1973-78b, 1980	10-14-79	0
13341100	Cold Springs Creek near Craigmont	Lat 46°14'10", long 116°31'06", in NE¼ sec.1, T.33 N., R.2 W., Lewis County, at U.S. Highway 95 and 2.7 mi (4.3 km) west of Craigmont.	8.07	1961-71b, 1973, 1975-78b, 1980	10-18-79	.48
13341500	Potlatch River at Kendrick	Lat 46°36'50", long 116°39'40", in SE¼NE¼NW¼ sec. 25, T.38 N., R.3 W., Latah County, at Mill Street bridge in Kendrick.	425	1946-60‡, 1961-71, 1974-78, 1980	10- 5-79	8.84
		Palouse River basin				
13344700	Deep Creek tributary near Potlatch	Lat 47°01'28", long 116°52'57", in SE¼ sec.31, T.43 N., R.4 W., Latah County, at U.S. Highway 95 and 7.0 mi (11.2 km) north of Potlatch.	2.90	1961-71, 1975, 1978,1980	10- 4-79 9-25-80	0 0
13346450	South Fork Palouse River near Moscow	Lat 46°42'41", long 116°58'45", in NE¼SE¼NE¼ sec. 20, T.39 N., R.5 W., Latah County, 0.6 mi (1.0 km) south of Mountain View Ave.-State Highway 8 junction and 1.0 mi (1.6 km) southeast of Moscow.	25.1	1972-78, 1980	10- 4-79	0
13346700	Paradise Creek near Moscow	Lat 46°43'45", long 116°58'32", in SE¼SW¼NW¼ sec.9, T.39 N., R.5 W., Latah County, on D Street 1.2 mi (1.9 km) east of U.S. Highway 95 in Moscow.	-	1973-78, 1980	10- 4-79 9- 5-80 9-24-80	0 0 .02

‡ Operated as a continuous-record gaging station.
a Approximately.
b Operated as a crest-stage station.
c Estimated.

Measurements at miscellaneous sites

Measurements of streamflow at points other than gaging stations or partial-record stations are given in the following table.

Discharge measurements made at miscellaneous sites during water year 1980

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements Date	 Discharge (ft³/s)
		Kootenai River basin				
Trail Creek 12310800	Deep Creek	Operated as a crest-stage station.	a16.1	1961-71b, 1973-79b	10- 3-79 1- 3-80 7-31-80	0 0 c1.0
Kootenai River 12322000	Columbia River	Lat 49°00'00", long 116°30'10", in SW¼ sec.8, T.65 N., R.1 W., Boundary County, on right bank 300 ft (91 m) south of international boundary at Porthill and at mile 105.63 (169.96 km).	13,700	1928-79‡	10- 1-79 11-13-79 6-30-80	9,910 20,600 7,830
		Pend Oreille River basin				
Trapper Creek 12392100	Lightning Creek	Operated as a crest-stage station.	1.12	1961-79	6- 4-80 9-18-80	4.43 0
		Spokane River basin				
Boulder Creek 12413100	South Fork Coeur d'Alene River	Operated as a crest-stage station.	3.13	1961-71b, 1973-79b	10-10-79 4-10-80 4-30-80 6-25-80	.28 c2.0 53.4 c7.0
South Fork Coeur d'Alene River 12413490	Coeur d'Alene River	Lat 47°33'35", long 116°15'03", in SW¼SE¼ sec.30, T.49 N., R.1 E., Shoshone County, at highway bridge at Enaville and 0.2 mi (0.3 km) upstream from mouth.	--	1972-73, 1975-79	10-16-79 12-12-79 1-16-80 4-29-80 7-15-80 9-17-80	112 220 927 2,360 347 154
Coeur d'Alene River 12413600	Spokane River	Lat 47°32'52", long 116°20'00", in NE¼SE¼ sec.33, T.49 N., R.1 E., Kootenai County, at U.S. Highway 10 bridge crossing at Cataldo.	--	1972-79	9-17-80	476
Latour Creek 12413700	Coeur d'Alene River	Operated as a crest-stage station.	24.8	1961-71‡, 1973-79b	10- 9-79 5-30-80 7- 8-80	4.04 153 21.5
East Fork Big Creek 12414400	Big Creek	Operated as a crest-stage station.	15.4	1973-79b	7- 8-80	21.1
Plummer Creek tributary 12415200	Plummer Creek	Operated as a crest-stage station.	2.10	1961-79b	10-10-79 3-17-80 6-16-80 9-25-80	0 c2.0 c1.0 0
Mica Creek 12415300	Coeur d'Alene Lake	Lat 47°36'00", long 116°53'00", in S½ sec.8, T.49 N., R.4 W., a road crossing 1 mi (1.6 km) upstream from mouth and 7 mi (11.3 km) southwest of Coeur d'Alene.	23.1	1958-59	5-23-80 5-30-80	10.0 19.1
Spokane River 12417598	Columbia River	Lat 47°40'34", long 116°48'05", in NE¼NW¼SW¼ sec. 14, T.50 N., R.4 W., Kootenai County, at Coeur d'Alene Lake outlet at Coeur d'Alene, and at mile 111.1 (178.8 km).	--	--	3-20-80 4-25-80 5-28-80 6- 9-80 7-16-80 8-25-80 8-30-80 9-18-80	5,740 15,900 17,200 8,080 3,140 1,300 1,520 2,020
Do.......... 12417650	.....do.......	Lat 47°41'34", long 116°48'46", in NE¼NW¼SE¼ sec. 10, T.50 N., R.4 W., Kootenai County, below Gibbs near Coeur d'Alene, and at mile 109.6 (176.3 km).	--	--	6- 9-80 8-25-80	8,240 868
Do.......... 12417725	.....do.......	Lat 47°41'51", long 116°49'40", in SW¼NW¼NW¼ sec. 10, T.50 N., R.4 W., Kootenai County, at Atlas 1 mi (1.6 km) west of Coeur d'Alene, and at mile 108.8 (175.1 km).	--	--	6- 9-80 8-25-80	8,430 920
Do.......... 12417850	.....do.......	Lat 47°41'47", long 116°51'32", in NW¼SW¼NE¼ sec. 8, T.50 N., R.4 W., Kootenai County, above Harbor Island 3 mi (4.8 km) west of Coeur d'Alene, and at mile 107.3 (172.6 km).	--	--	6-10-80 8-26-80	7,540 895
Do.......... 12417925	.....do.......	Lat 47°41'43", long 116°52'52", in SE¼SW¼NE¼ sec. 7, T.50 N., R.4 W., Kootenai County, below Harbor Island 3 mi (4.8 km) east of Post Falls, and at mile 106.2 (170.9 km).	--	--	6-10-80 8-26-80	7,920 1,410

See footnotes at end of table, p.

Discharge measurements made at miscellaneous sites during water year 1980

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Spokane River basin--Continued				
Spokane River 12418025	Columbia River	Lat 47°41'52", long 116°53'51", in NW¼SW¼NE¼ sec. 12, T.50 N., R.5 W., Kootenai County, below Black Bay 2 mi (3.2 km) east of Post Falls, and at mile 105.2 (169.3 km).	--	--	6-11-80 8-27-80	8,130 1,590
Do.......... 12418200	.....do.......	Lat 47°42'05", long 116°55'38", in NW¼NE¼NW¼ sec. 11, T.50 N., R.5 W., Kootenai County, at Ford Rock 1 mi (1.6 km) east of Post Falls, and at mile 103.5 (166.5 km).	--	--	6-11-80 8-27-80	7,950 1,660
Do.......... 12418300	.....do.......	Lat 47°42'16", long 116°56'53", in NE¼SE¼SW¼ sec. 3, T.50 N., R.5 W., Kootenai County, at bridge crossing at Post Falls, and at mile 102.5 (164.5 km).	--	--	6-12-80 8-28-80	7,360 1.660
		King Hill Creek basin				
King Hill Creek 13155000	Snake River	Lat 42°59'31", long 115°13'55", in NW¼SW¼NE¼ sec. 14, T.5 S., R.10 E., Elmore County, 1.7 mi (2.7 km) west of King Hill at Highway 30 crossing.	78.9	1956, 1963	3-27-80 7-29-80	29.0 3.93
		Little Canyon Creek basin				
Little Canyon Creek 13155300	Snake River	Opearted as a crest-stage station.	14.2	1961-65b, 1966-71‡, 1973-79b	1-18-80 5-23-80	10.4 16.2
Do.......... 13155600	.....do.......	Lat 42°57'14", long 115°18'10", in SE¼SE¼SE¼ sec. 30, T.5 S., R.10 E., Elmore County, at road crossing of Highway 30.	--	--	3-27-80 7-29-80	c2.0 8.95
		Alkali Creek basin				
Alkali Creek 13155700	Snake River	Lat 42°57'26", long 115°21'50", in SE¼NE¼SE¼ sec. 27, T.5 S., R.9 E., Elmore County, 2.9 mi (4.7 km) west of Glenns Ferry at road crossing.	--	--	7-29-80	1.6
		Cold Springs Creek basin				
Cold Springs Creek 13156000	Snake River	Lat 42°56'45", long 115°25'52", in SW¼SW¼NE¼ sec. 31, T.5 S., R.9 E., Elmore County, 1.5 mi (2.4 km) east of Hammett at highway crossing.	a65	1909-13‡	7-29-80	1.86
		Sailor Creek basin				
Pot Hole Creek tributary 13157005	Pot Hole Creek	Operated as a crest-stage station.	5.73	1973-79b	4-17-80	0
		Snake River basin				
Snake River 13157100	Columbia	Lat 42°56'35", long 115°31'52", in SE¼NE¼SW¼ sec. 32, T.5 S., R.8 E., Elmore-Owyhee County line, at highway bridge 4 mi (6.4 km) west of Hammett.	--	1969-70	7-29-80	7,210
		Bruneau River basin				
Sugar Creek tributary 13170100	Sugar Creek	Operated as a crest-stage station.	4.50	1961-71b, 1972, 1973-79b	1-15-80 4-17-80	0 0
Sugar Creek 13170200	Bruneau River	Operated as a crest-stage station.	33.6	1973-79b	1-15-80 4-17-80	0 0
		Snake River basin				
Shoofly Creek 13171720	Snake River	Lat 42°57'41", long 116°02'35", in NE¼NW¼SE¼ sec. 25, T.5 S., R.3 E., Owyhee County, 2.8 mi (4.5 km) southeast of Grand View.	--	--	7-29-80	28.3
Birch Creek 13171850	.....do.......	Lat 43°01'32", long 116°11'16", in NW¼NE¼NW¼ sec. 2, T.5 S., R.2 E., Owyhee County, 5.9 mi (9.4 km) northwest of Grand View.	--	--	7-29-80	22.7
Castle Creek 13172010	.....do.......	Lat 43°03'17", long 116°17'30", in SW¼SW¼SW¼ sec. 24, T.4 S., R.1 E., Owyhee County, 11.8 mi (18.8 km) northwest of Grand View.	--	--	3-27-80 7-29-80	9.3 2.19
		Fossil Creek basin				
Fossil Creek 13172200	Snake River	Operated as a crest-stage station.	19.7	1961-72b, 1974-79b	1-14-80 3-27-80 5-15-80	0 1.14 0
		Sinker Creek basin				
Sinker Creek 13172310	Snake River	Lat 43°09'18", long 116°25'40", in NW¼NE¼NW¼ sec. 23, T.3 S., R.1 W., Owyhee County, 0.1 mi (0.2 km) east of Gabica Ranch.	--	--	7-29-80	c2.0

Discharge measurements made at miscellaneous sites during water year 1980

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		Snake River basin				
Snake River 13172645	Columbia River	Lat 43°20'28", long 116°36'02", in SE¼NE¼NW¼ sec. 17, T.1 S., R.2 W., Owyhee County, at Highway 45 crossing at Walters Ferry.	--	1970	7-29-80	6,310
		Reynolds Creek basin				
Reynolds Creek 13172750	Snake River	Lat 43°21'36", long 116°39'07", in NW¼SE¼SE¼ sec. 2, T.1 S., R.3 W., Owyhee County, at State Highway crossing 4.7 mi (7.6 km) southeast of Givens Hot Springs.	--	1970	3-27-80	17.0
		Squaw Creek basin				
Little Squaw Creek tributary 13172800	Little Squaw Creek	Operated as a crest-stage station.	1.81	1961-79b	1-14-80 4-14-80	0 0
		Jump Creek basin				
Jump Creek 13172882	Snake River	Lat 43°35'20", long 116°54'37", in SW¼SW¼SW¼ sec. 14, T.3 N., R.5 W., Owyhee County, 2 mi (3.2 km) southwest of Homedale.	--	--	7-30-80	94
		Snake River basin				
Snake River 13172900	Columbia River	Lat 43°37'10", long 116°55'20", in SE¼SE¼SW¼ sec. 3, T.3 N., R.5 W., Owyhee County, at Highway 95 crossing at Homedale.	--	1970	7-30-80	6,160
		Succor Creek basin				
Succor Creek 13173500	Snake River	Lat 43°37'05", long 116°57'14", in NW¼NE¼NE¼ sec. 8, T.3 N., R.5 W., Owyhee County, 0.65 mi (1.0 km) west of Homedale.	--	1970	3-28-80 7-30-80	54.5 59.7
		Tributaries Between Succor Creek and Owyhee River				
Allen Drain 13173550	Snake River	Lat 43°41'24", long 117°01'34", in SE¼NE¼NE¼ sec. 6, T.22 S., R.47 E., Malheur County 6.3 mi (10.1 km) northwest of Wilder.	--	1970	7-30-80 9-23-80	35.8 42.3
North Alkali Creek 13173555	Alkali Creek	Lat 43°40'18", long 117°04'14", in NW¼NE¼SW¼ sec. 11, T.22 S., R.46 E., Owyhee County, 5.0 mi (8.1 km) south of Adrian.	--	1972	7-30-80	35.5
South Boise Drain 13173630	Snake River	Lat 43°46'47", long 117°00'40", in SW¼SW¼SW¼, sec. 12, T.5 N., R.6 W., Canyon County, 3.5 mi (5.6 km) west of Parma.	--	1970, 1972	5-15-80 6-25-80 7-31-80 9-23-80	96.5 72.3 61.8 89.4
North Alkali Drain 13173632	South Boise Drain	Lat 43°46'39", long 117°01'16", in NW¼NW¼NE¼ sec. 14, T.5 N., R.6 W., Canyon County, 5.3 mi (8.5 km) northwest of Parma.	--	1972	5-15-80 6-25-80 7-31-80 9-23-80	6.59 2.98 7.44 c5.0
Ross Drain 13173635	.....do.......	Lat 43°47'21", long 117°01'16", in SW¼NW¼NW¼ sec. 12, T.5 N., R.6 W., Canyon County, at county road crossing, 0.4 mi (2.2 km) upstream from mouth, and 3.5 mi (5.6 km) west of Parma.	--	1972	5-15-80 6-25-80 7-31-80 9-23-80	20.2 10.9 c7 c4
		Owyhee River basin				
Blue Creek 13176100	Owyhee River	Operated as a crest-stage station.	24.0	1975-79b	4-17-80	0
		Boise River basin				
Roaring River 13184200	Middle Fork Boise River	Operated as a crest-stage station.	23.3	1958, 1963-71b, 1973-79b	10- 2-79 10- 4-79 6-19-80	10.2 12.1 202
Lizard Wasteway 13203503	Diversion from Boise River	Lat 43°34'22", long 116°48'05", in NW¼NW¼NE¼ sec. 27, T.3 N., R.4 W., Canyon County, 2 mi (3.2 km) north of Marsing.	--	--	7-29-80 9-23-80	13.6 4.42
Cottonwood Creek 13204800	Boise River	Operated as a crest-stage station.	12.0	1959,1973, 1974-79b	2-20-80 6-20-80 7-22-80	20.2 4.39 c2.0

Discharge measurements made at miscellaneous sites during water year 1980

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Boise River basin--Continued				
Hulls Gulch 13205550	Boise River	Lat 43°38'28", long 116°11'17", in SE¼SW¼NW¼ sec. 35, T.4 N., R.2 E., Ada County, about 2.7 mi (4.3 km) north of Idaho State Capitol building at Boise.	--	--		
Bryans Run 13210300	Blacks Creek	Operated as a crest-stage station.	7.94	1961-79b	5-15-80 6-24-80	0 0
Indian Creek 13211345	Boise River	Operated as a crest-stage station.	--	--	10- 3-79	97.1
		Malheur River basin				
Malheur River 13234000	Snake River	Lat 44°03'23", long 116°58'42", in NW¼SE¼SW¼ sec. 28, T.17 S., R.47 E. (Willamette meridian), Malheur County, at highway crossing 1.5 mi (2.4 km) north of Ontario, Ore.	--	1969-70	3-28-80 7-31-80	367 306
		Payette River basin				
Fivemile Creek 13234300	South Fork Payette River	Operated as a crest-stage station.	a7.8	1961, 1962-71b,	10- 2-79 6- 3-80	4.37 54.7
Tripod Creek 13245400	North Fork Payette River	Operated as a crest-stage station.	8.63	1961, 1962-71b, 1973-79b	5-19-80	29.7
Cottonwood Creek 13248900	Harris Creek	Operated as a crest-stage station.	6.53	1961-71b, 1972, 1973-79b	1-14-80 2-22-80	36.7 16.5
Johnson Creek 13248970	Payette River	Operated as a crest-stage station.	3.44	1974-79	2-21-80 6-24-80	3.27 0
		Snake River basin				
Snake River 13251010	Columbia River	Lat 44°05'44", long 116°56'22" in NE¼NE¼NE¼ sec. 28, T.9 N., R.5 W., Payette County, at State Highway 52 crossing about 0.6 mi (1.0 km) north of Payette.	--	1970	7-30-80	8,990
		Weiser River basin				
East Fork Diversion Canal 13252595	Diversion From East Fork Weiser River	Lat 44°48'36", long 116°19'20", in NE¼NE¼SW¼ sec. 15, T.17 N., R.1 E., Adams County, 8 mi (12.9 km) northeast of Council.	--	--	7- 2-80 7- 9-80 7-17-80 7-24-80 8- 1-80 8- 8-80 8-14-80 8-20-80 8-29-80 9- 6-80 9-12-80 9-18-80 9-25-80	0 8.97 12.8 12.3 11.8 10.1 11.7 9.61 9.09 7.80 8.72 9.88 7.64
Yantis Ditch 13252690	.....do.......	Lat 44°49'27", long 116°21'51", in NE¼NE¼SW¼ sec. 8, T.17 N., R.1 E., Adams County, 2 mi (3.2 km) above mouth of East Fork Weiser River.	--	--	6-19-80 6-25-80 7- 2-80 7- 9-80 7-17-80 7-24-80 8- 1-80 8- 8-80 8-14-80 8-20-80 8-29-80 9- 6-80 9-12-80 9-18-80 9-25-80	0 2.97 5.09 3.43 4.98 5.26 6.39 3.86 3.10 2.47 0 1.14 2.30 1.80 2.75

Discharge measurements made at miscellaneous sites during water year 1980

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft³/s)
		Weiser River basin--Continued				
Robertson-Sevey Ditch 13253720	Diversion From Weiser River	Lat 44°49'53", long 116°26'58", in NE¼NW¼NW¼ sec. 10, T.17 N., R.1 W., Adams County, 1.8 mi (2.9 km) north of Fruitvale.	--	1974	4-24-80	0
					5- 6-80	3.30
					5-15-80	3.84
					5-21-80	3.73
					6- 4-80	4.77
					6-19-80	4.67
					7- 2-80	2.67
					7-17-80	5.65
					8- 1-80	10.4
					8- 7-80	7.33
					8-21-80	4.77
					8-29-80	4.63
					9-12-80	5.36
					9-25-80	0.88
Farmers Canal 13253740	.....do.......	Lat 44°49'17", long 116°26'44", in NW¼SE¼SW¼ sec. 10, T.17 N., R.1 W., Adams County, 0.7 mi (1.1 km) north of Fruitvale.	--	1974	5-15-80	0.03
					5-21-80	0.04
					5-29-80	0
					6- 4-80	5.50
					6- 9-80	4.03
					6-19-80	9.91
					6-26-80	3.33
					7- 2-80	5.19
					7- 9-80	14.1
					7-17-80	14.9
					7-24-80	14.8
					8- 1-80	13.0
					8- 7-80	15.4
					8-14-80	16.1
					8-21-80	14.4
					8-29-80	16.4
					9- 6-80	14.6
					9-12-80	16.9
					9-18-80	0.84
					9-25-80	0.62
Harrington Ranch Ditch 13254910	Diversion From West Fork Weiser River	Lat 44°50'46", long 116°28'55", in NW¼NW¼NE¼ sec. 5, T.17 N., R.1 W., Adams County, 3 mi (4.8 km) northwest of Fruitvale.	--	--	5-15-80	0.03
					5-21-80	3.09
					5-28-80	3.94
					6- 4-80	1.65
					6- 9-80	1.38
					6-18-80	0.72
					6-26-80	0.42
					7- 2-80	0.40
					7- 9-80	0.44
					7-17-80	1.51
					7-24-80	5.48
					8- 1-80	11.8
					8- 7-80	10.4
					8-14-80	9.90
					8-21-80	9.52
					8-28-80	5.48
					9- 6-80	3.22
					9-12-80	1.13
					9-18-80	1.01
					9-25-80	0.07
T. J. Glenn Ditch 13254920	.....do.......	Lat 44°50'43", long 116°28'47", in SE¼NW¼NE¼ sec. 5, T.17 N., R.1 W., Adams County, 3 mi (4.8 km) northwest of Fruitvale.	--	--	5-15-80	0
					5-21-80	4.01
					5-28-80	4.80
					6- 4-80	5.59
					6- 9-80	4.91
					6-18-80	5.52
					6-26-80	3.98
					7- 2-80	3.31
					7- 9-80	5.07
					7-17-80	3.93
					7-24-80	8.61
					8- 1-80	11.8
					8- 7-80	11.3
					8-14-80	11.2
					8-21-80	9.80
					8-28-80	10.8
					9- 6-80	5.46
					9-12-80	5.00
					9-18-80	4.26
					9-25-80	0.26

Discharge measurements made at miscellaneous sites during water year 1980

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		Weiser River basin--Continued				
Frank Hahn Ditch 13255054	Diversion From Weiser River	Lat 44°48'01", long 116°26'10", in SW¼NE¼NE¼ sec. 22, T.17 N., R.1 W., Adams County, 1.2 mi (1.9 km) south of Fruitvale.	--	1974	6-18-80	0
					6-26-80	3.19
					7- 2-80	2.68
					7- 9-80	0.71
					7-17-80	2.64
					7-24-80	1.89
					7-31-80	3.59
					8-21-80	3.15
					8-28-80	3.72
					9- 6-80	2.47
					9-18-80	0
Middle Fork Ditch 13256910	Diversion From Middle Fork Weiser River	Lat 44°38'31", long 116°25'18", in SW¼NW¼NE¼ sec. 14, T.15 N., R.1 W., Adams County, 4 mi (6.4 km) above mouth of Middle Fork Weiser River.	--	--	4-16-80	0
					5- 7-80	3.05
					5-14-80	0.86
					5-21-80	0
					6-18-80	0
					6-26-80	4.53
					7- 2-80	4.62
					7-10-80	0
					7-17-80	0
					7-23-80	4.59
					7-31-80	5.63
					8- 7-80	4.67
					8-13-80	6.16
					8-21-80	5.59
					8-28-80	5.77
					9- 5-80	5.13
					9-11-80	1.21
					9-18-80	1.35
					9-24-80	1.51
Goodrich Canal 13257720	Diversion From Weiser River	Lat 44°38'57", long 116°33'24", in SW¼NE¼SE¼ sec. 10, T.15 N., R.2 W., Adams County, 7 mi (11.3 km) southwest of Council.	--	1974	4-16-80	0
					5- 7-80	4.61
					5-14-80	2.29
					5-21-80	[c]0.1
					5-28-80	[c]0.1
					6- 3-80	0
					7- 3-80	0
					7-10-80	5.72
					7-17-80	7.01
					7-23-80	6.99
					7-31-80	0
					8-13-80	6.22
					8-27-80	6.48
					9- 5-80	0
New Canal of Cambridge Ditch Company 13258150	.....do.......	Lat 44°36'12", long 116°36'48", in NW¼SW¼SW¼ sec. 29, T.15 N., R.2 W., Washington County, 3 mi (4.8 km) northeast of Cambridge.	--	--	5- 14-80	0
					5-21-80	2.82
					5-28-80	5.10
					6- 3-80	3.11
					6- 9-80	0.80
					7- 3-80	6.18
					7-10-80	1.49
					7-16-80	3.87
					7-23-80	8.28
					7-31-80	9.21
					8- 6-80	5.72
					8-21-80	6.15
					9- 5-80	4.34
					9-17-80	2.87
					9-24-80	2.13
Cove Canal 13258325	.....do.......	Lat 44°35'42", long 116°36'59", in SE¼SE¼NE¼ sec. 31, T.15 N., R.2 W., Washington County, 3 mi (4.8 km) northeast of Cambridge.	--	--	4-16-80	0
					5- 7-80	1.30
					5-21-80	0.57
					5-28-80	1.34
					6- 3-80	0.63
					6- 9-80	[c]0.1
					6-18-80	0
					7- 3-80	0
					7-10-80	3.15
					7-16-80	3.78
					7-23-80	2.07
					7-31-80	2.18
					8- 6-80	3.83
					8-13-80	3.37
					8-21-80	2.97
					8-27-80	2.59
					9- 5-80	2.36
					9-11-80	5.77
					9-17-80	2.39
					9-24-80	1.13

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites during water year 1980

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Weiser River basin--Continued				
Allison-Jewell Ditch 13258390	Diversion From Weiser River	Lat 44°34'47", long 116°38'02", in SW¼SW¼NW¼ sec. 6, T.14 N., R.2 W., Washington County, 1.8 mi (2.9 km) east of Cambridge.	--	1974	5- 7-80	0
					5-14-80	6.95
					5-21-80	9.94
					5-28-80	7.18
					6- 3-80	7.54
					6- 9-80	6.64
					6-18-80	8.58
					6-26-80	3.73
					7- 3-80	4.80
					7-10-80	18.6
					7-16-80	10.8
					7-23-80	20.0
					7-31-80	16.6
					8- 6-80	11.3
					8-13-80	9.33
					8-21-80	10.0
					8-27-80	8.47
					9- 5-80	4.57
					9-11-80	5.53
					9-17-80	4.03
					9-24-80	3.55
Dixie Creek 13261670	Weiser River	Operated as a crest-stage station.	11.0	1973,1974b, 1975, 1976-79b	1-21-80	2.0
					5-21-80	0
Midvale Canal 13261800	.....do.......	Lat 44°31'38", long 116°41'14", in NE¼NE¼NW¼ sec. 27, T.14 N., R.3 W., Washington County, 3 mi (4.8 km) south of Cambridge.	--	1940,1974	4-16-80	0
					5- 7-80	62.1
					5-21-80	60.6
					6- 3-80	56.5
					7- 3-80	65.6
					7-23-80	67.2
					8-13-80	68.1
					8-27-80	61.5
					9-17-80	45.1
Sunnyside Canal 13266400	.....do.......	Lat 44°14'50", long 116°46'35", in SE¼SW¼NE¼ sec. 35, T.11 N., R.4 W., Washington County, 9 mi (14.5 km) east of Weiser.	--	1940,1959	5- 7-80	57.7
					5-14-80	47.7
					6- 9-80	42.9
					7-10-80	66.2
					8- 6-80	58.8
					8-21-80	60.6
					9- 5-80	48.6
Galloway Canal 13266500	.....do.......	Lat 44°14'35", long 116°50'00", in SE¼NE¼SE¼ sec. 32, T.11 N., R.4 W., Washington County, 7 mi (11.3 km) east of Weiser.	--	1920-69‡	5- 7-80	179
					5-28-80	184
					6-26-80	171
					7-31-80	157
					8- 6-80	150
					8-27-80	150
					9-16-80	119
Weiser City Ditch 13267181	Diversion From Weiser River	Lat 44°14'11", long 116°53'42", in SW¼NE¼NE¼ sec. 2, T.10 N., R.5 W., Washington County, 4 mi (6.4 km) east of Weiser.	--	--	6- 3-80	20.7
					6- 9-80	12.6
					6-18-80	13.8
					6-26-80	15.8
					7- 3-80	21.3
					7-10-80	39.3
					7-17-80	26.7
					7-23-80	15.9
					7-31-80	19.6
					8-13-80	22.7
					8-21-80	24.2
					9- 5-80	27.9
					9-24-80	3.25
Weiser River 13268800	Snake River	Lat 44°14'21", long 116°58'10", in SW¼SW¼ sec.32, T.11 N., R.5 W., Washington County, at mouth and at Weiser.	--	1974	7-21-80	51.9

Discharge measurements made at miscellaneous sites during water year 1980

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		Salmon River basin				
Slate Creek 13297250	Salmon River	Lat 44°15'19", long 114°33'48", in SW¼SW¼NW¼ sec. 27, T.11 N., R.16 E., Custer County, at bridge crossing at mouth and 8.1 mi (13.0 km) west of Clayton.	31.6	1971	6- 2-80 6- 3-80	13.0 24.2
East Fork Salmon River 13297400	.....do.......	Lat 44°00'23", long 114°28'48", in NW¼NW¼SE¼ sec. 20, T.8 N., R.17 E., Custer County, at bridge crossing, 1.6 mi (2.6 km) downstream from West Pass Creek, and 18 mi (28.9 km) south of Clayton.	75.6	1971-74, 1977	5-22-80	632
Germania Creek 13297404	.....do.......	Lat 44°02'21", long 114°27'40", in SE¼SE¼NW¼ sec. 9, T.8 N., R.17 E., Custer County, at bridge crossing 0.6 mi (0.9 km) downstream from Bowery Creek, and 15.5 mi (24.9 km) south of Clayton.	48.9	1971-73, 1977	6- 3-80 6- 4-80 6-17-80	83.2 78.2 170
Big Boulder Creek 13297500	.....do.......	Lat 44°05'58", long 114°26'24", in SW¼NW¼NE¼ sec. 15, T.9 N., R.17 E., Custer County, at bridge crossing, 0.4 mi (0.6 km) upstream from mouth, and 10 mi (16.1 km) southwest of Clayton.	24.7	1926-30‡, 1971-73, 1976-77	5-22-80	101
East Fork Salmon River 13297605	Salmon River	Lat 44°09'25", long 114°17'58", in SE¼SW¼NW¼ sec. 35, T.10 N., R.18 E., at Herd Creek Road bridge crossing, Custer County.	--	--	6- 3-80	490
Morse Creek 13301700	Pahsimeroi River	Operated as a crest-stage station.	18.0	1962-71b, 1972, 1973-79b	10- 4-79	6.67
Hughes Creek 13305800	North Fork Salmon River	Operated as a crest-stage station.	15.7	1962-71b, 1973-79b	10- 3-79	4.13
Transmountain diversion 13312300	Johnson Creek	Lat 44°32'30", long 115°34'00", in NE¼ sec.23, T.14 N., R.7 E., Valley County, Boise National Forest, about 0.5 mi (0.8 km) downstream from point of transmountain Johnson Creek-Deadwood River diversion, 9 mi (14 km) south of Landmark ranger station, and 11 mi (18 km) southeast of Knox.	--	1937-41, 1951-52, 1954-65, 1967,1969, 1971,1976, 1978	10- 3-79 9-21-80	0.75 1.99
Boulder Creek Diversion 13316015	Diversion From Boulder Creek	Lat 45°05'07", long 116°26'28", in NW¼NW¼SE¼ sec. 10, T.20 N., R.1 W., Adams County, 11 mi (17.7 km) northwest of New Meadows.	--	--	9- 1-80 8-20-80 9-12-80	1.37 1.79 1.44
		Clearwater River basin				
Rackcliff Creek 13336450	Selway River	Operated as a crest-stage station.	8.44	1924, 1973-79b	1- 2-80 4-26-80 6-25-80	5.85 35.0 c5.0
Leggett Creek 13337540	South Fork Clearwater River	Operated as a crest-stage station.	7.78	1973-79b	1- 3-80 4-26-80	2.4 29.2
Peasley Creek 13337700	.....do.......	Operated as a crest-stage station.	14.2	1961, 1962-71b, 1972-73, 1974-79b	10-13-79 1- 3-80 4-26-80	2.0 4.92 42.7
Canal Gulch Creek 13339700	Orofino Creek	Operated as a crest-stage station.	5.9	1961, 1962-71b, 1973-79b	10-13-79 1- 4-80 4-19-80 6-17-80	0.89 4.47 27.9 10
Deer Creek 13339900	Whiskey Creek	Operated as a crest-stage station.	a6.8	1962-71b, 1973, 1974-79b	10-14-79 1- 4-80 4-19-80 6-17-80	0 0.6 4.49 c2.5
Cold Springs Creek 13341100	Big Canyon Creek	Operated as a crest-stage station.	8.07	1961-65b, 1967-71b, 1972, 1974-79b	10-18-79 4-26-80 6-16-80	0.48 0.91 c1.0
Lindsay Creek tributary No. 4 13343010	Lindsay Creek	Operated as a crest-stage station.	2.96	1973-79b	9-23-80	0
		Palouse River basin				
Deep Creek 13344800	Palouse River	Operated as a crest-stage station.	36.6	1961-71b, 1972-73, 1974-79b	10- 4-79 3-17-80 5-22-80 6-16-80 9-25-80	0 c22 5.76 c5.0 0
Paradise Creek 13346750	South Fork Palouse River	Operated as a crest-stage station.	14.0	1973, 1974-79b	10- 4-79 6-16-80 9- 5-80 9-24-80	0 c1.0 0 c0.02

‡ Operated as a continuous-record gaging station.
a Approximately.
b Operated as a crest-stage station.
c Estimated.

Water-quality partial-record stations are particular sites where chemical-quality, biological, and/or sediment data are collected systematically over a period of years for use in hydrologic analyses. The data are collected usually less than quarterly.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

KOOTENAI RIVER BASIN

12316800 - MISSION CREEK NEAR COPELAND, IDAHO (LAT 48 55 54 LONG 116 20 00)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT
MAY , 1980												
29...	* 1000	39	24	6.2	16.0	8.5	8	5	2.3	.5	1.1	22
JUN												
03...	* 0915	48	26	7.0	12.0	6.0	8	0	2.4	.4	1.2	24
10...	* 0830	37	25	6.7	22.0	10.0	9	6	2.7	.6	1.3	22
16...	* 1000	37	26	7.0	23.5	11.0	10	3	2.7	.7	1.4	23
23...	* 1245	25	27	6.8	16.0	11.0	8	0	2.6	.3	1.3	25

SPOKANE RIVER BASIN

12413100 - BOULDER CREEK AT MULLAN IDAHO (LAT 47 28 10 LONG 115 47 44)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT
MAY , 1980												
22...	* 1550	34	41	7.3	7.5	5.5	20	3	6.2	1.0	.6	6

12413140 - PLACER CREEK AT WALLACE, IDAHO (LAT 47 27 50 LONG 115 56 10)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT
MAY , 1980												
22...	* 1700	35	57	7.7	7.0	6.5	29	3	8.9	1.6	.9	6

12413700 - LATOUR CREEK NEAR CATALDO IDAHO (LAT 47 28 10 LONG 116 26 15)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT
MAY , 1980												
23...	* 1130	180	15	7.0	8.5	7.0	5	0	1.3	.3	.8	26
30...	* 0930	153	16	5.5	12.5	7.0	5	5	1.2	.5	.9	26
JUL												
08...	* 1445	22	15	7.0	26.5	14.0	4	0	1.2	.2	.9	30

12414400 - EAST FORK BIG CREEK NEAR CALDER, ID (LAT 47 18 07 LONG 116 07 05)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT
MAY , 1980												
23...	* 1620	87	40	7.4	7.5	7.0	17	0	4.3	1.4	1.0	11
JUL												
06...	* 0930	21	46	7.1	--	11.0	21	0	5.4	1.7	1.0	9

12415075 - ST JOE RIVER AT ST MARIES, IDAHO (LAT 47 19 02 LONG 116 33 38)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT
MAY , 1980												
22...	* 1200	7910	39	6.9	8.0	10.0	19	3	6.0	.8	1.2	12

12415300 - MICA CREEK NEAR COEUR D ALENE IDAHO (LAT 47 36 00 LONG 116 53 00)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT
MAY , 1980												
23...	* 0940	11	46	7.5	9.0	8.0	15	0	3.9	1.2	3.0	29
30...	* 1200	19	41	6.6	10.0	12.0	13	0	3.3	1.2	2.6	28

PAYETTE RIVER BASIN

13240000 - LAKE FK PAYETTE RIVER AB JUMBO CR NR MCCALL, ID (LAT 44 54 50 LONG 115 59 10)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT
JUN , 1980												
10...	* 1130	545	12	8.5	19.5	5.0	5	0	1.8	.0	.9	29

See footnotes at end of table, p.

ANALYSES OF SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
KOOTENAI RIVER BASIN--Continued												
12316800 - MISSION CREEK NEAR COPELAND, IDAHO (LAT 48 55 54 LONG 116 20 00)												
MAY , 1980												
29...	.2	.4	3	--	.7	.4	.1	9.9	23	18	.03	2.42
JUN												
03...	.2	.4	9	1.0	1.3	.2	.0	10	25	22	.03	3.24
10...	.2	.4	3	--	.7	.2	.0	10	29	26	.04	2.90
16...	.2	.4	7	--	1.0	.2	.0	10	24	21	.03	2.40
23...	.2	.4	120	--	1.0	.2	.1	9.9	30	88	.04	2.03
SPOKANE RIVER BASIN--Continued												
12413100 - BOULDER CREEK AT MULLAN IDAHO (LAT 47 28 10 LONG 115 47 44)												
MAY , 1980												
22...	.1	.2	17	--	.5	1.2	.1	4.8	27	25	.04	2.48
12413140 - PLACER CREEK AT WALLACE, IDAHO (LAT 47 27 50 LONG 115 56 10)												
MAY , 1980												
22...	.1	.3	26	--	.8	.3	.0	7.5	41	36	.06	3.87
12413700 - LATOUR CREEK NEAR CATALDO IDAHO (LAT 47 28 10 LONG 116 26 15)												
MAY , 1980												
23...	.2	.3	5	--	.3	1.6	.0	6.7	15	14	.02	7.29
30...	.2	.3	0	--	.7	1.3	.1	7.8	21	13	.03	8.68
JUL												
08...	.2	.4	6	1.2	.7	3.8	.1	8.9	18	20	.02	1.07
12414400 - EAST FORK BIG CREEK NEAR CALDER, ID (LAT 47 18 07 LONG 116 07 05)												
MAY , 1980												
23...	.1	.4	17	--	3.6	1.0	.1	8.2	28	30	.04	6.58
JUL												
06...	.1	.3	22	3.3	1.0	5.6	.2	8.3	29	37	.04	1.65
12415075 - ST JOE RIVER AT ST MARIES, IDAHO (LAT 47 19 02 LONG 116 33 38)												
MAY , 1980												
22...	.1	.6	16	2.8	1.4	.6	.1	7.9	28	29	.04	598
12415300 - MICA CREEK NEAR COEUR D ALENE IDAHO (LAT 47 36 00 LONG 116 53 00)												
MAY , 1980												
23...	.3	1.0	18	.9	5.8	1.2	.1	23	53	51	.07	1.57
30...	.3	1.0	15	--	3.0	1.8	.1	22	45	44	.06	2.32
PAYETTE RIVER BASIN--Continued												
13240000 - LAKE FK PAYETTE RIVER AB JUMBO CR NR MCCALL, ID (LAT 44 54 50 LONG 115 59 10)												
JUN , 1980												
10...	.2	.2	9	--	1.4	.5	.0	6.0	15	17	.02	22.1

ANALYSES OF SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)
KOOTENAI RIVER BASIN--Continued								
12316800 - MISSION CREEK NEAR COPELAND, IDAHO (LAT 48 55 54 LONG 116 20 00)								
MAY , 1980								
29...	.02	.01	.040	.150	.05	.19	.54	.12
JUN								
03...	.05	.04	.010	.030	.01	.04	.32	.22
10...	.01	1.8	.060	.100	.07	.13	.17	.71
16...	.00	.01	.000	.000	.00	.00	.52	.15
23...	.01	.00	.000	.000	.00	.00	.35	.26
SPOKANE RIVER BASIN--Continued								
12413100 - BOULDER CREEK AT MULLAN IDAHO (LAT 47 28 10 LONG 115 47 44)								
MAY , 1980								
22...	.01	.01	.010	.010	.01	.01	.50	.22
12413140 - PLACER CREEK AT WALLACE, IDAHO (LAT 47 27 50 LONG 115 56 10)								
MAY , 1980								
22...	.01	.01	.030	.010	.04	.01	.56	.25
12413700 - LATOUR CREEK NEAR CATALDO IDAHO (LAT 47 28 10 LONG 116 26 15)								
MAY , 1980								
23...	.02	.01	.010	.030	.01	.04	.61	.25
30...	.00	.01	.010	.010	.01	.01	.25	.25
JUL								
08...	.00	.00	.010	.010	.01	.01	.21	.53
12414400 - EAST FORK BIG CREEK NEAR CALDER, ID (LAT 47 18 07 LONG 116 07 05)								
MAY , 1980								
23...	.04	.01	.030	.040	.04	.05	1.2	.34
JUL								
06...	.00	.00	.010	.010	.01	.01	1.1	.93
12415075 - ST JOE RIVER AT ST MARIES, IDAHO (LAT 47 19 02 LONG 116 33 38)								
MAY , 1980								
22...	.06	.06	.030	.010	.04	.01	.22	.20
12415300 - MICA CREEK NEAR COEUR D ALENE IDAHO (LAT 47 36 00 LONG 116 53 00)								
MAY , 1980								
23...	.02	.03	.010	.010	.01	.01	.61	.25
30...	.01	.02	.030	.060	.04	.08	.34	.34
PAYETTE RIVER BASIN--Continued								
13240000 - LAKE FK PAYETTE RIVER AB JUMBO CR NR MCCALL, ID (LAT 44 54 50 LONG 115 59 10)								
JUN , 1980								
10...	.02	.03	.010	.010	.01	.01	.43	.24

DATE	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS PO4)
KOOTENAI RIVER BASIN--Continued								
12316800 - MISSION CREEK NEAR COPELAND, IDAHO (LAT 48 55 54 LONG 116 20 00)								
MAY , 1980								
29...	.58	.31	.27	.60	2.7	.050	.010	.15
JUN								
03...	.33	.08	.25	.38	1.7	.010	.010	.03
10...	.23	.00	.81	.24	1.1	.000	.010	.00
16...	.52	.37	.15	.52	2.3	.010	.050	.03
23...	.35	.09	.26	.36	1.6	.030	.000	.09
SPOKANE RIVER BASIN--Continued								
12413100 - BOULDER CREEK AT MULLAN IDAHO (LAT 47 28 10 LONG 115 47 44)								
MAY , 1980								
22...	.51	.28	.23	.52	2.3	.010	.010	.03
12413140 - PLACER CREEK AT WALLACE, IDAHO (LAT 47 27 50 LONG 115 56 10)								
MAY , 1980								
22...	.59	.33	.26	.61	2.7	.010	.010	.03
12413700 - LATOUR CREEK NEAR CATALDO IDAHO (LAT 47 28 10 LONG 116 26 15)								
MAY , 1980								
23...	.62	.34	.28	.64	2.8	.010	.010	.03
30...	.26	.00	.26	.26	1.2	.010	.010	.03
JUL								
08...	.22	.00	.54	.22	.97	.030	.020	.09
12414600 - EAST FORK BIG CREEK NEAR CALDER, ID (LAT 47 18 07 LONG 116 07 05)								
MAY , 1980								
23...	1.2	.82	.38	1.2	5.5	.010	.010	.03
JUL								
08...	1.1	.16	.94	1.1	4.9	.030	.020	.09
12415075 - ST JOE RIVER AT ST MARIES, IDAHO (LAT 47 19 02 LONG 116 33 38)								
MAY , 1980								
22...	.25	.04	.21	.31	1.4	.040	.010	.12
12415300 - MICA CREEK NEAR COEUR D ALENE IDAHO (LAT 47 36 30 LONG 116 52 00)								
MAY , 1980								
23...	.62	.36	.26	.64	2.8	.030	[illegible]	.09
30...	.37	.00	.40	.38	1.7	.080	.020	.12
PAYETTE RIVER BASIN--Continued								
13240000 - LAKE FK PAYETTE RIVER AB JUMBO CK NR MCCALL, ID (LAT 44 56 50 LONG 115 49 10)								
JUN , 1980								
10...	.44	.19	.62	.44	2.0	.010	[illegible]	.03

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, SUSPENDED RECOV. (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, TOTAL (UG/L AS SB)	ANTIMONY, SUSPENDED TOTAL (UG/L AS SB)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)
KOOTENAI RIVER BASIN--Continued												
12316800 - MISSION CREEK NEAR COPELAND, IDAHO (LAT 48 55 54 LONG 116 20 00)												
MAY , 1980												
29...	--	--	--	--	--	--	1	1	0	<100	0	† 2
JUN												
02...	120	40	<100	0	0	0	0	0	0	<100	0	† 8
10...	170	110	<100	0	0	0	0	0	0	<100	0	† 7
16...	110	20	<100	0	0	0	0	0	0	<100	0	†10
23...	170	130	<100	--	--	--	1	0	1	<100	0	† 3
SPOKANE RIVER BASIN--Continued												
12413100 - BOULDER CREEK AT MULLAN IDAHO (LAT 47 28 10 LONG 115 47 44)												
MAY , 1980												
22...	<100	0	<100	0	0	0	1	1	0	100	50	†50
12413140 - PLACER CREEK AT WALLACE, IDAHO (LAT 47 27 50 LONG 115 56 10)												
MAY , 1980												
22...	<100	40	<100	0	0	0	0	0	1	<100	0	†20
12413700 - LATOUR CREEK NEAR CATALDO IDAHO (LAT 47 28 10 LONG 116 26 15)												
MAY , 1980												
23...	<100	70	<100	0	0	0	1	0	3	<100	0	†30
30...	--	--	--	--	--	--	0	0	0	<100	0	† 7
JUL												
08...	280	280	<100	--	--	--	0	0	0	<100	0	†10
12414400 - EAST FORK BIG CREEK NEAR CALDER, ID (LAT 47 18 07 LONG 116 07 05)												
MAY , 1980												
23...	<100	50	<100	0	0	0	0	0	0	<100	0	†20
JUL												
06...	240	240	<100	--	--	--	1	1	0	<100	0	†10
12415075 - ST JOE RIVER AT ST MARIES, IDAHO (LAT 47 19 02 LONG 116 33 38)												
MAY , 1980												
22...	530	490	<100	0	0	0	2	0	2	<100	0	†20
12415300 - MICA CREEK NEAR COEUR D ALENE IDAHO (LAT 47 36 00 LONG 116 53 00)												
MAY , 1980												
23...	200	130	<100	0	0	0	0	0	0	100	80	†20
30...	--	--	--	--	--	--	1	1	0	<100	0	†10
PAYETTE RIVER BASIN--Continued												
13240000 - LAKE FK PAYETTE RIVER AB JUMBO CR NR MCCALL, ID (LAT 44 54 50 LONG 115 59 10)												
JUN , 1980												
10...	240	180	<100	0	0	0	1	0	1	<100	0	† 7

ANALYSES OF SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	BORON, SUS-PENDED RECOV-ERABLE (UG/L AS B)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO)
KOOTENAI RIVER BASIN--Continued												
12316800 - MISSION CREEK NEAR COPELAND, IDAHO (LAT 48 55 54 LONG 116 20 00)												
MAY , 1980												
29...	--	<100	--	--	1	--	† <1	0	0	0	<5	--
JUN												
03...	<1	<100	10	<100	0	--	† <1	0	0	0	<5	--
10...	<1	<100	4	<100	0	--	† <1	0	0	0	<5	--
16...	<1	<100	20	<100	1	--	† <1	0	0	0	<5	--
23...	<1	<100	10	<100	0	--	† <1	0	0	0	<5	--
SPOKANE RIVER BASIN--Continued												
12413100 - BOULDER CREEK AT MULLAN IDAHO (LAT 47 28 10 LONG 115 47 44)												
MAY , 1980												
22...	<1	<100	5	<100	1	0	† 1	0	0	0	<5	0
12413140 - PLACER CREEK AT WALLACE, IDAHO (LAT 47 27 50 LONG 115 56 10)												
MAY , 1980												
22...	<1	<100	5	<100	1	1	† 0	0	0	0	<5	0
12413700 - LATOUR CREEK NEAR CATALDO IDAHO (LAT 47 28 10 LONG 116 26 15)												
MAY , 1980												
23...	<1	<100	0	<100	0	0	† 0	0	0	0	<5	0
30...	--	<100	--	--	0	--	† <1	0	0	0	<5	--
JUL												
08...	<1	<100	50	<100	0	0	† 1	0	0	0	10	--
12414400 - EAST FORK BIG CREEK NEAR CALDER, ID (LAT 47 18 07 LONG 116 07 05)												
MAY , 1980												
23...	<1	<100	1	<100	0	0	† 1	0	0	0	<5	0
JUL												
06...	<1	<100	20	<100	1	--	† <1	10	10	0	<5	--
12415075 - ST JOE RIVER AT ST MARIES, IDAHO (LAT 47 19 02 LONG 116 33 38)												
MAY , 1980												
22...	<1	<100	20	<100	0	--	† <1	0	0	0	<5	--
12415300 - MICA CREEK NEAR COEUR D ALENE IDAHO (LAT 47 36 00 LONG 116 53 00)												
MAY , 1980												
23...	<1	<100	10	<100	1	0	† 2	0	0	0	<5	0
30...	--	<100	--	--	0	--	† <1	0	0	0	<5	--
PAYETTE RIVER BASIN--Continued												
13240000 - LAKE FK PAYETTE RIVER AB JUMBO CR NR MCCALL, ID (LAT 44 54 50 LONG 115 59 10)												
JUN , 1980												
10...	<1	<100	0	<100	0	--	† <1	0	0	0	<5	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI)	LITHIUM SUS-PENDED RECOV-ERABLE (UG/L AS LI)
KOOTENAI RIVER BASIN--Continued												
12316800 - MISSION CREEK NEAR COPELAND, IDAHO (LAT 48 55 54 LONG 116 20 00)												
MAY , 1980												
29...	†<5	<10	4	†<10	130	90	40	<5	2	†<10	--	--
JUN												
03...	†<5	<10	--	†<10	150	110	40	<5	--	†<10	<10	--
10...	†<5	<10	--	†<10	130	100	30	<5	--	†<10	<10	--
16...	†<5	<10	--	†<10	130	90	40	7	--	†<10	<10	--
23...	†<5	<10	--	†<10	130	90	40	--	0	--	<10	--
SPOKANE RIVER BASIN--Continued												
12413100 - BOULDER CREEK AT MULLAN IDAHO (LAT 47 28 10 LONG 115 47 44)												
MAY , 1980												
22...	†<5	<10	2	†<10	100	90	10	5	2	†<10	<10	--
12413140 - PLACER CREEK AT WALLACE, IDAHO (LAT 47 27 50 LONG 115 56 10)												
MAY , 1980												
22...	†<5	<10	2	†<10	150	50	<10	10	10	†<10	<10	--
12413700 - LATOUR CREEK NEAR CATALDO IDAHO (LAT 47 28 10 LONG 116 26 15)												
MAY , 1980												
23...	†<5	<10	2	†<10	100	90	10	<5	0	†<10	<10	--
30...	†<5	<10	0	†<10	60	50	10	<5	2	†<10	--	--
JUL												
08...	†<5	20	--	†<10	40	--	<10	20	0	† 32	<10	--
12414400 - EAST FORK BIG CREEK NEAR CALDER, ID (LAT 47 18 07 LONG 116 07 05)												
MAY , 1980												
23...	†<5	10	6	†<10	120	--	<10	6	6	†<10	<10	--
JUL												
06...	†<5	11	--	†<10	60	--	<10	10	0	† 11	<10	--
12415075 - ST JOE RIVER AT ST MARIES, IDAHO (LAT 47 19 02 LONG 116 33 38)												
MAY , 1980												
22...	†<5	<10	--	†<10	530	470	60	7	0	† 20	<10	--
12415300 - MICA CREEK NEAR COEUR D ALENE IDAHO (LAT 47 36 00 LONG 116 53 00)												
MAY , 1980												
23...	†<5	<10	4	†<10	400	220	180	--	0	--	<10	--
30...	†<5	<10	4	†<10	380	270	110	<5	2	†<10	--	--
PAYETTE RIVER BASIN--Continued												
13240000 - LAKE FK PAYETTE RIVER AB JUMBO CR NR MCCALL, ID (LAT 44 54 50 LONG 115 59 10)												
JUN , 1980												
10...	†<5	<10	--	†<10	60	--	<10	11	--	†<10	<10	--

ANALYSES OF SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDED RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY SUS- PENDED RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, SUS- PENDED RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)
KOOTENAI RIVER BASIN--Continued											
12316800 - MISSION CREEK NEAR COPELAND, IDAHO (LAT 48 55 54 LONG 116 20 00)											
MAY , 1980											
29...	--	<50	8	† 2	<1.0	.0	.0	--	10	10	<10
JUN											
03...	†<10	<50	8	† 2	<1.0	.0	.0	<10	<10	0	<10
10...	†<10	<50	0	† 2	<1.0	.2	.0	<10	<10	7	<10
16...	†<10	<50	8	† 2	<1.0	.1	.0	<10	<10	2	<10
23...	†<10	<50	8	† 2	<1.0	.0	.0	10	10	9	<10
SPOKANE RIVER BASIN--Continued											
12413100 - BOULDER CREEK AT MULLAN IDAHO (LAT 47 28 10 LONG 115 47 44)											
MAY , 1980											
22...	†<10	<50	0	† 3	<1.0	.1	.0	<10	<10	1	<10
12413140 - PLACER CREEK AT WALLACE, IDAHO (LAT 47 27 50 LONG 115 56 10)											
MAY , 1980											
22...	†<10	<50	9	† 1	<1.0	.0	.0	<10	<10	3	<10
12413700 - LATOUR CREEK NEAR CATALDO IDAHO (LAT 47 28 10 LONG 116 26 15)											
MAY , 1980											
23...	†<10	<50	0	† 1	<1.0	.0	.0	<10	<10	0	<10
30...	--	<50	9	† 1	<1.0	.0	.0	--	<10	0	<10
JUL											
08...	†<10	<50	--	†<1	<1.0	.0	.0	<10	20	17	<10
12414400 - EAST FORK BIG CREEK NEAR CALDER, ID (LAT 47 18 07 LONG 116 07 05)											
MAY , 1980											
23...	†<10	<50	0	† 2	<1.0	.0	.7	<10	<10	0	14
JUL											
06...	†<10	<50	--	†<1	<1.0	.0	.0	<10	<10	0	<10
12415075 - ST JOE RIVER AT ST MARIES, IDAHO (LAT 47 19 02 LONG 116 33 38)											
MAY , 1980											
22...	†<10	<50	10	† 7	<1.0	.0	.0	<10	<10	2	<10
12415300 - MICA CREEK NEAR COEUR D ALENE IDAHO (LAT 47 36 00 LONG 116 53 00)											
MAY , 1980											
23...	†<10	<50	0	†20	<1.0	.0	.0	<10	<10	2	<10
30...	--	<50	0	†10	<1.0	.0	.0	--	<10	7	<10
PAYETTE RIVER BASIN--Continued											
13240000 - LAKE FK PAYETTE RIVER AB JUMBO CR NR MCCALL, ID (LAT 44 54 50 LONG 115 59 10)											
JUN , 1980											
10...	†<10	<50	0	† 2	<1.0	.0	.0	<10	<10	3	<10

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, SUS-PENDED RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
KOOTENAI RIVER BASIN--Continued											
12316800 - MISSION CREEK NEAR COPELAND, IDAHO (LAT 48 55 54 LONG 116 20 00)											
MAY , 1980											
29...	0	0	0	0	0	0	--	--	<50	20	†<5
JUN											
03...	0	0	0	0	0	0	10	<6.0	<50	--	†<5
10...	0	0	0	0	0	0	10	<6.0	<50	40	†<5
16...	0	0	0	0	0	0	10	<6.0	<50	--	†<5
23...	0	0	0	0	0	0	10	<10	90	--	†<5
SPOKANE RIVER BASIN--Continued											
12413100 - BOULDER CREEK AT MULLAN IDAHO (LAT 47 28 10 LONG 115 47 44)											
MAY , 1980											
22...	0	0	0	0	0	0	10	<6.0	<50	--	†<5
12413140 - PLACER CREEK AT WALLACE, IDAHO (LAT 47 27 50 LONG 115 56 10)											
MAY , 1980											
22...	0	0	0	0	0	0	10	<6.0	<50	20	†<5
12413700 - LATOUR CREEK NEAR CATALDO IDAHO (LAT 47 28 10 LONG 116 26 15)											
MAY , 1980											
23...	0	0	0	0	0	0	<10	<6.0	<50	--	†<5
30...	0	0	0	0	0	0	--	--	<50	10	†10
JUL											
08...	0	0	0	0	0	0	10	<6.0	<50	--	†<5
12414400 - EAST FORK BIG CREEK NEAR CALDER, ID (LAT 47 18 07 LONG 116 07 05)											
MAY , 1980											
23...	0	0	0	0	0	0	10	<6.0	<50	20	†<5
JUL											
06...	0	0	0	0	0	0	20	<6.0	<50	6	†<5
12415075 - ST JOE RIVER AT ST MARIES, IDAHO (LAT 47 19 02 LONG 116 33 38)											
MAY , 1980											
22...	0	0	0	0	0	0	10	<6.0	120	80	†<5
12415300 - MICA CREEK NEAR COEUR D ALENE IDAHO (LAT 47 36 00 LONG 116 53 00)											
MAY , 1980											
23...	0	0	0	0	0	0	30	<6.0	<50	--	†<5
30...	0	0	0	0	0	0	--	--	<50	--	†<5
PAYETTE RIVER BASIN--Continued											
13240000 - LAKE FK PAYETTE RIVER AB JUMBO CR NR MCCALL, ID (LAT 44 54 50 LONG 115 59 10)											
JUN , 1980											
10...	0	0	0	0	0	0	20	<6.0	<50	--	†<5

ANALYSES OF SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT
PAYETTE RIVER BASIN												
13250600 - BIG WILLOW CREEK NEAR EMMETT, IDAHO (LAT 44 04 25 LONG 116 29 10)												
JUN , 1980												
06...	*1245	40	118	6.8	15.0	11.5	47	0	11	4.6	5.9	21
SALMON RIVER BASIN												
13296500 - SALMON RIVER BELOW YANKEE FORK, NEAR CLAYTON, ID (LAT 44 16 06 LONG 114 43 55)												
MAY , 1980												
13...	1400	2690	59	7.6	11.0	6.0	23	2	7.5	1.1	2.7	20
13297450 - LITTLE BOULDER CREEK NEAR CLAYTON IDAHO (LAT 44 05 57 LONG 114 26 56)												
MAY , 1980												
21...	*1620	50	64	7.6	27.5	10.5	23	8	8.2	.5	2.0	16
13298000 - EAST FORK SALMON RIVER NEAR CLAYTON, ID (LAT 44 13 29 LONG 114 17 06)												
MAY , 1980												
21...	*1450	795	135	7.8	28.0	14.0	46	4	15	2.0	3.5	14
CLEARWATER RIVER BASIN												
13339500 - LOLO CR NR GREER ID (LAT 46 22 20 LONG 116 09 40)												
MAY , 1980												
28...	*1700	1270	29	6.6	19.0	10.0	9	0	2.7	.6	1.7	26
JUN												
05...	*0915	951	27	6.9	13.5	13.4	9	3	2.6	.6	1.9	30
13...	*1000	720	30	6.8	15.0	15.0	11	3	3.0	.7	2.0	27
18...	*1425	580	29	7.1	24.5	17.0	11	0	2.8	1.0	2.0	26
25...	*1200	393	33	6.9	21.5	14.5	10	0	2.9	.7	2.0	28
13341300 - BLOOM CR NR BOVILL IDA (LAT 46 51 28 LONG 116 17 22)												
MAY , 1980												
22...	*1000	2.5	60	7.9	7.5	10.0	24	0	6.8	1.7	2.5	17
13341500 - POTLATCH RIVER NR KENDRICK, IDAHO (LAT 46 36 50 LONG 116 39 40)												
MAY , 1980												
21...	*1430	E100	158	8.0	30.0	21.5	35	5	10	2.3	4.4	21
PALOUSE RIVER BASIN												
13344800 - DEEP CREEK NEAR POTLATCH, IDAHO (LAT 46 57 38 LONG 116 56 04)												
MAY , 1980												
22...	*1230	5.8	144	7.5	9.0	14.5	49	7	14	3.4	7.7	24
13346800 - PARADISE CR AT UNIVERSITY OF IDAHO AT MOSCOW, ID (LAT 46 43 55 LONG 117 01 24)												
MAY , 1980												
22...	* 0920	5.4	455	7.7	15.5	14.5	160	45	44	11	35	32

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
PAYETTE RIVER BASIN--Continued												
13250600 - BIG WILLOW CREEK NEAR EMMETT, IDAHO (LAT 44 04 25 LONG 116 29 10)												
JUN , 1980 06...	.4	2.3	57	--	1.3	.6	.1	39	111	100	.15	12.0
SALMON RIVER BASIN--Continued												
13296500 - SALMON RIVER BELOW YANKEE FORK, NEAR CLAYTON, ID (LAT 44 16 06 LONG 114 43 55)												
MAY , 1980 13...	.2	.5	21	--	1.5	.1	.3	15	--	41	.08	298
13297450 - LITTLE BOULDER CREEK NEAR CLAYTON IDAHO (LAT 44 05 57 LONG 114 26 56)												
MAY , 1980 21...	.2	.4	15	--	2.0	4.9	.1	9.7	44	37	.06	5.94
13298000 - EAST FORK SALMON RIVER NEAR CLAYTON, ID (LAT 44 13 29 LONG 114 17 06)												
MAY , 1980 21...	.2	.5	42	--	5.5	.9	.1	9.6	70	63	.10	150
CLEARWATER RIVER BASIN--Continued												
13339500 - LOLO CR NR GREER ID (LAT 46 22 20 LONG 116 09 40)												
MAY , 1980 28...	.3	.9	14	6.9	1.6	.4	.0	16	45	33	.06	154
JUN 05...	.3	.7	6	--	1.1	1.1	.0	17	41	29	.06	105
13...	.3	.7	8	--	1.0	1.0	.0	17	45	31	.06	87.5
18...	.3	.8	13	--	1.0	.2	.4	17	41	34	.06	64.2
25...	.3	.8	16	--	.6	.8	.1	17	37	35	.05	39.3
13341300 - BLOOM CR NR BOVILL IDA (LAT 46 51 28 LONG 116 17 22)												
MAY , 1980 22...	.2	1.5	25	--	2.4	.4	.1	23	59	54	.08	.40
13341500 - POTLATCH RIVER NR KENDRICK, IDAHO (LAT 46 36 50 LONG 116 39 40)												
MAY , 1980 21...	.3	1.9	29	--	5.3	2.4	.1	25	72	78	E.10	E19.4
PALOUSE RIVER BASIN--Continued												
13344800 - DEEP CREEK NEAR POTLATCH, IDAHO (LAT 46 57 38 LONG 116 56 04)												
MAY , 1980 22...	.5	2.9	42	2.1	17	8.4	.2	25	111	107	.15	1.74
13346800 - PARADISE CR AT UNIVERSITY OF IDAHO AT MOSCOW, ID (LAT 46 43 55 LONG 117 01 24)												
MAY , 1980 22...	1.2	4.9	120	4.3	62	29	.8	37	307	295	.42	4.48

ANALYSES OF SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)
PAYETTE RIVER BASIN--Continued								
13250600 - BIG WILLOW CREEK NEAR EMMETT, IDAHO (LAT 44 04 25 LONG 116 29 10)								
JUN , 1980 06...	.10	.10	.000	.000	.00	.00	--	.30
SALMON RIVER BASIN--Continued								
13296500 - SALMON RIVER BELOW YANKEE FORK, NEAR CLAYTON, ID (LAT 44 16 06 LONG 114 43 55)								
MAY , 1980 13...	--	.01	--	--	--	--	--	--
13297450 - LITTLE BOULDER CREEK NEAR CLAYTON IDAHO (LAT 44 05 57 LONG 114 26 56)								
MAY , 1980 21...	.01	.00	.010	.060	.01	.08	1.3	.75
13298000 - EAST FORK SALMON RIVER NEAR CLAYTON, ID (LAT 44 13 29 LONG 114 17 06)								
MAY , 1980 21...	.04	.03	.090	.080	.11	.10	.49	.45
CLEARWATER RIVER BASIN--Continued								
13339500 - LOLO CR NR GREER ID (LAT 46 22 20 LONG 116 09 40)								
MAY , 1980 20...	.08	.04	.000	.000	.00	.00	1.0	.96
JUN 05...	.35	.06	.080	.060	.10	.08	.15	.18
13...	.02	.03	.080	.060	.10	.09	.18	.18
18...	.03	.03	.020	.120	.02	.15	.26	.20
25...	.04	.02	.000	.010	.00	.01	.58	.38
13341300 - BLOOM CR NR BOVILL IDA (LAT 46 51 20 LONG 116 17 22)								
MAY , 1980 22...	1.1	.01	.010	.030	.01	.04	.56	.29
13341500 - POTLATCH RIVER NR KENDRICK, IDAHO (LAT 46 36 50 LONG 116 39 40)								
MAY , 1980 21...	.13	.15	.060	.030	.07	.04	.67	.37
PALOUSE RIVER BASIN--Continued								
13344000 - DEEP CREEK NEAR POTLATCH, IDAHO (LAT 46 57 30 LONG 116 56 04)								
MAY , 1980 22...	.34	.36	.110	.090	.13	.12	.64	.61
13346800 - PARADISE CR AT UNIVERSITY OF IDAHO AT MOSCOW, ID (LAT 46 43 55 LONG 117 01 24)								
MAY , 1980 22...	1.1	1.1	.240	.220	.29	.28	1.2	.70

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS PO4)
PAYETTE RIVER BASIN--Continued								
13250600 - BIG WILLOW CREEK NEAR EMMETT, IDAHO (LAT 44 04 25 LONG 116 29 10)								
JUN , 1980								
06...	--	--	.38	--	--	.070	.030	.21
SALMON RIVER BASIN--Continued								
13296500 - SALMON RIVER BELOW YANKEE FORK, NEAR CLAYTON, ID (LAT 44 16 06 LONG 114 43 55)								
MAY , 1980								
13...	--	--	--	--	--	.040	--	.12
13297450 - LITTLE BOULDER CREEK NEAR CLAYTON IDAHO (LAT 44 05 57 LONG 114 26 56)								
MAY , 1980								
21...	1.3	.49	.81	1.3	5.8	.030	.010	.09
13298000 - EAST FORK SALMON RIVER NEAR CLAYTON, ID (LAT 44 13 29 LONG 114 17 06)								
MAY , 1980								
21...	.58	.05	.53	.62	2.7	.050	.010	.15
CLEARWATER RIVER BASIN--Continued								
13339500 - LOLO CR NR GREER ID (LAT 46 22 20 LONG 116 09 40)								
MAY , 1980								
28...	1.0	.04	.96	1.1	4.8	.060	.020	.18
JUN								
05...	.23	.00	.24	.58	2.6	.030	.010	.09
13...	.26	.02	.24	.28	1.2	.050	.020	.15
18...	.28	.00	.32	.31	1.4	.020	.020	.06
25...	.58	.21	.37	.62	2.7	.040	.020	.12
13341300 - BLOOM CR NR BOVILL IDA (LAT 46 51 28 LONG 116 17 22)								
MAY , 1980								
22...	.57	.25	.32	1.7	7.4	.030	.030	.09
13341500 - POTLATCH RIVER NR KENDRICK, IDAHO (LAT 46 36 50 LONG 116 39 40)								
MAY , 1980								
21...	.93	.53	.40	1.1	4.7	.060	.040	.18
PALOUSE RIVER BASIN--Continued								
13344800 - DEEP CREEK NEAR POTLATCH, IDAHO (LAT 46 57 38 LONG 116 56 04)								
MAY , 1980								
22...	.75	.05	.70	1.1	4.8	.130	.040	.40
13346800 - PARADISE CR AT UNIVERSITY OF IDAHO AT MOSCOW, ID (LAT 46 43 55 LONG 117 01 24)								
MAY , 1980								
22...	1.4	.48	.92	2.5	11	.810	.120	2.5

ANALYSES OF SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, SUSPENDED RECOV. (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, TOTAL (UG/L AS SB)	ANTIMONY, SUSPENDED TOTAL (UG/L AS SB)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)
PAYETTE RIVER BASIN--Continued												
13250600 - BIG WILLOW CREEK NEAR EMMETT, IDAHO (LAT 44 04 25 LONG 116 29 10)												
JUN , 1980												
06...	810	720	90	0	0	0	2	2	0	<100	0	†30
SALMON RIVER BASIN--Continued												
13297450 - LITTLE BOULDER CREEK NEAR CLAYTON IDAHO (LAT 44 05 57 LONG 114 26 56)												
MAY , 1980												
21...	250	210	40	0	0	0	3	2	1	<100	0	† 3
13298000 - EAST FORK SALMON RIVER NEAR CLAYTON, ID (LAT 44 13 29 LONG 114 17 06)												
MAY , 1980												
21...	450	370	80	0	0	0	3	2	1	<100	0	† 8
CLEARWATER RIVER BASIN--Continued												
13339500 - LOLO CR NR GREER ID (LAT 46 22 20 LONG 116 09 40)												
MAY , 1980												
28...	280	<100	250	0	0	0	0	0	0	<100	0	†20
JUN												
05...	--	--	--	--	--	--	0	0	0	<100	0	†20
13...	700	610	<100	0	0	0	0	0	0	<100	0	†30
18...	160	100	<100	--	--	--	1	0	1	<100	0	†20
25...	180	140	<100	--	--	--	1	0	1	<100	0	†20
13341300 - BLOOM CR NR BOVILL IDA (LAT 46 51 28 LONG 116 17 22)												
MAY , 1980												
22...	<100	0	<100	0	0	0	3	0	3	<100	0	†30
13341500 - POTLATCH RIVER NR KENDRICK, IDAHO (LAT 46 36 50 LONG 116 39 40)												
MAY , 1980												
21...	190	160	<100	0	0	0	1	1	0	<100	0	†30
PALOUSE RIVER BASIN--Continued												
13344808 - DEEP CREEK NEAR POTLATCH, IDAHO (LAT 46 57 38 LONG 116 56 04)												
MAY , 1980												
22...	550	240	310	0	0	0	1	0	1	100	50	†50
13346800 - PARADISE CR AT UNIVERSITY OF IDAHO AT MOSCOW, ID (LAT 46 43 55 LONG 117 01 24)												
MAY , 1980												
22...	--	--	--	--	--	--	5	3	2	200	100	†90
SALMON RIVER BASIN--Continued												
442444115075100 - CAPE HORN LAKE NEAR STANLEY, ID (LAT 44 24 44 LONG 115 [illegible] 51)												
JUN , 1980												
05...	‡ 150	110	<100	--	--	--	1	0	1	<100	0	†10

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	BORON, SUSPENDED RECOVERABLE (UG/L AS B)	BORON, DISSOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, SUSPENDED RECOVERABLE (UG/L AS CO)
PAYETTE RIVER BASIN--Continued												
13250600 - BIG WILLOW CREEK NEAR EMMETT, IDAHO (LAT 44 04 25 LONG 116 29 10)												
JUN , 1980 06...	<1	<100	20	<100	0	--	† <1	0	0	0	<5	--
SALMON RIVER BASIN--Continued												
13297450 - LITTLE BOULDER CREEK NEAR CLAYTON IDAHO (LAT 44 05 57 LONG 114 26 56)												
MAY , 1980 21...	<1	<100	7	<100	0	--	† <1	0	0	0	<5	--
13298000 - EAST FORK SALMON RIVER NEAR CLAYTON, ID (LAT 44 13 29 LONG 114 17 06)												
MAY , 1980 21...	<1	<100	1	<100	2	--	† <1	0	0	0	<5	--
CLEARWATER RIVER BASIN--Continued												
13339500 - LOLO CR NR GREER ID (LAT 46 22 20 LONG 116 09 40)												
MAY , 1980 28...	<1	<100	20	<100	1	<100	† <1	0	0	0	<5	--
JUN 05...	--	<100	--	--	0	--	† <1	0	0	0	<5	--
13...	<1	<100	30	<100	0	--	† <1	0	0	0	<5	--
18...	<1	<100	0	<100	1	--	† <1	0	0	0	<5	--
25...	<1	<100	0	<100	0	--	† <1	0	0	0	<5	--
13341300 - BLOOM CR NR BOVILL IDA (LAT 46 51 28 LONG 116 17 22)												
MAY , 1980 22...	<1	<100	10	<100	0	0	† 3	0	0	0	<5	0
13341500 - POTLATCH RIVER NR KENDRICK, IDAHO (LAT 46 36 50 LONG 116 39 40)												
MAY , 1980 21...	<1	1600	0	<100	2	1	† 1	0	0	0	<5	0
PALOUSE RIVER BASIN--Continued												
13344800 - DEEP CREEK NEAR POTLATCH, IDAHO (LAT 46 57 38 LONG 116 56 0[illegible])												
MAY , 1980 22...	<1	<100	0	<100	1	0	† <1	0	0	0	<5	0
13346800 - PARADISE CR AT UNIVERSITY OF IDAHO AT MOSCOW, ID (LAT 46 43 55 LONG 117 01 24)												
MAY , 1980 22...	--	100	--	--	2	1	† 1	0	0	0	5	--
SALMON RIVER BASIN--Continued												
442444115075100 - CAPE HORN LAKE NEAR STANLEY, ID (LAT 44 24 44 LONG 115 07 51)												
JUN , 1980 05...	<1	<100	20	<100	0	0	† 2	0	0	0	<5	--

ANALYSES OF SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	LITHIUM SUSPENDED RECOVERABLE (UG/L AS LI)
PAYETTE RIVER BASIN--Continued												
13250600 - BIG WILLOW CREEK NEAR EMMETT, IDAHO (LAT 44 04 25 LONG 116 29 10)												
JUN , 1980												
06...	†<5	<10	--	†<10	1500	1200	260	6	6	†<10	<10	--
SALMON RIVER BASIN--Continued												
13297450 - LITTLE BOULDER CREEK NEAR CLAYTON IDAHO (LAT 44 05 57 LONG 114 26 56)												
MAY , 1980												
21...	†<5	<10	--	†<10	730	--	<10	<5	--	†<10	<10	--
13298000 - EAST FORK SALMON RIVER NEAR CLAYTON, ID (LAT 44 13 29 LONG 114 17 06)												
MAY , 1980												
21...	†<5	18	--	†<10	1500	--	<10	10	--	†<10	10	--
CLEARWATER RIVER BASIN--Continued												
13339500 - LOLO CR NR GREER ID (LAT 46 22 20 LONG 116 09 40)												
MAY , 1980												
28...	†<5	27	--	†<10	1600	1400	170	13	--	†<10	<10	--
JUN												
05...	†<5	<10	1	†<10	580	450	130	<5	1	†<10	--	--
13...	†<5	<10	--	†<10	1100	670	430	5	5	†<10	<10	--
18...	†<5	<10	--	†<10	310	180	130	--	0	--	<10	--
25...	†<5	<10	--	†<10	380	250	130	<5	0	†<10	<10	0
13341300 - BLOOM CR NR BOVILL IDA (LAT 46 51 28 LONG 116 17 22)												
MAY , 1980												
22...	†<5	<10	0	†<10	570	130	440	<5	0	† 10	<10	--
13341500 - POTLATCH RIVER NR KENDRICK, IDAHO (LAT 46 36 50 LONG 116 39 40)												
MAY , 1980												
21...	†<5	<10	3	†<10	500	360	140	21	15	†<10	<10	--
PALOUSE RIVER BASIN--Continued												
13344800 - DEEP CREEK NEAR POTLATCH, IDAHO (LAT 46 57 38 LONG 116 56 04)												
MAY , 1980												
22...	†<5	11	6	†<10	1900	1600	280	<5	2	†<10	<10	--
13346800 - PARADISE CR AT UNIVERSITY OF IDAHO AT MOSCOW, ID (LAT 46 43 55 LONG 117 01 24)												
MAY , 1980												
22...	†<5	44	36	†<10	10000	9900	60	80	74	†<10	--	--
SALMON RIVER BASIN--Continued												
442444115075100 - CAPE HORN LAKE NEAR STANLEY, ID (LAT 44 24 44 LONG 115 07 51)												
JUN , 1980												
05...	†<5	<10	0	† 12	100	70	30	<5	1	†<10	<10	0

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDED RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY SUS- PENDED RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, SUS- PENDED RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)
PAYETTE RIVER BASIN--Continued											
13250600 - BIG WILLOW CREEK NEAR EMMETT, IDAHO (LAT 44 04 25 LONG 116 29 10)											
JUN , 1980											
06...	†<10	<50	20	† 7	<1.0	.1	.0	<10	<10	0	<10
SALMON RIVER BASIN--Continued											
13297450 - LITTLE BOULDER CREEK NEAR CLAYTON IDAHO (LAT 44 05 57 LONG 114 26 56)											
MAY , 1980											
21...	†<10	<50	--	†<1	<1.0	.0	.0	<10	<10	0	<10
13298000 - EAST FORK SALMON RIVER NEAR CLAYTON, ID (LAT 44 13 29 LONG 114 17 06)											
MAY , 1980											
21...	†<10	<50	40	† 4	<1.0	.0	.0	<10	<10	2	<10
CLEARWATER RIVER BASIN--Continued											
13339500 - LOLO CR NR GREER ID (LAT 46 22 20 LONG 116 09 40)											
MAY , 1980											
28...	†<10	<50	40	† 4	3.6	3.0	.6	<10	<10	4	<10
JUN											
05...	--	<50	8	† 2	<1.0	.3	.1	--	<10	4	<10
13...	†<10	<50	5	†15	<1.0	.1	.1	<10	<10	6	<10
18...	†<10	<50	0	† 2	<1.0	.0	.0	<10	<10	0	<10
25...	†<10	<50	8	† 2	<1.0	.0	.0	<10	<10	4	<10
13341300 - BLOOM CR NR BOVILL IDA (LAT 46 51 28 LONG 116 17 22)											
MAY , 1980											
22...	†<10	50	10	†40	<1.0	.1	.0	<10	<10	1	<10
13341500 - POTLATCH RIVER NR KENDRICK, IDAHO (LAT 46 36 50 LONG 116 39 40)											
MAY , 1980											
21...	†<10	<50	10	†10	<1.0	.1	.0	<10	<10	2	<10
PALOUSE RIVER BASIN--Continued											
13344800 - DEEP CREEK NEAR POTLATCH, IDAHO (LAT 46 57 38 LONG 116 56 04)											
MAY , 1980											
22...	†<10	400	40	†360	<1.0	.0	.0	<10	<10	0	<10
13346800 - PARADISE CR AT UNIVERSITY OF IDAHO AT MOSCOW, ID (LAT 46 43 55 LONG 117 01 24)											
MAY , 1980											
22...	--	540	210	†330	<1.0	.2	.0	--	20	11	<10
SALMON RIVER BASIN--Continued											
442444115075100 - CAPE HORN LAKE NEAR STANLEY, ID (LAT 44 24 44 LONG 115 07 51)											
JUN , 1980											
05...	†<10	<50	8	†2	<1.0	.0	.3	<10	<10	1	<10

DATE	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
PAYETTE RIVER BASIN--Continued											
13250600 - BIG WILLOW CREEK NEAR EMMETT, IDAHO (LAT 44 04 25 LONG 116 29 10)											
JUN , 1980											
06...	0	0	0	0	0	0	60	11	<50	--	† <5
SALMON RIVER BASIN--Continued											
13297450 - LITTLE BOULDER CREEK NEAR CLAYTON IDAHO (LAT 44 05 57 LONG 114 26 56)											
MAY , 1980											
21...	0	0	0	0	0	0	60	<6.0	<50	--	† <5
13298000 - EAST FORK SALMON RIVER NEAR CLAYTON, ID (LAT 44 13 29 LONG 114 17 06)											
MAY , 1980											
21...	0	0	0	0	0	0	130	<6.0	<50	30	† <5
CLEARWATER RIVER BASIN--Continued											
13339500 - LOLO CR NR GREER ID (LAT 46 22 20 LONG 116 09 40)											
MAY , 1980											
28...	0	0	0	0	0	0	30	<6.0	60	50	† 12
JUN											
05...	0	0	0	0	0	0	--	--	70	60	† 6
13...	0	0	0	0	0	0	40	<6.0	<50	--	† <5
18...	0	0	0	0	0	0	40	<6.0	<50	--	† <5
25...	0	0	0	0	0	0	40	<6.0	<50	--	† <5
13341300 - BLOOM CR NR BOVILL IDA (LAT 46 51 28 LONG 116 17 22)											
MAY , 1980											
22...	0	0	0	0	0	0	30	<6.0	<50	10	† 10
13341500 - POTLATCH RIVER NR KENDRICK, IDAHO (LAT 46 36 50 LONG 116 39 40)											
MAY , 1980											
21...	0	0	0	0	0	0	60	<6.0	<50	0	† 50
PALOUSE RIVER BASIN--Continued											
13344800 - DEEP CREEK NEAR POTLATCH, IDAHO (LAT 46 57 38 LONG 116 56 04)											
MAY , 1980											
22...	0	0	0	0	0	0	90	<6.0	<50	20	† <5
13346800 - PARADISE CR AT UNIVERSITY OF IDAHO AT MOSCOW, ID (LAT 46 43 55 LONG 117 01 24)											
MAY , 1980											
22...	1	1	0	0	0	0	--	--	120	90	† 30
SALMON RIVER BASIN--Continued											
442444115075100 - CAPE HORN LAKE NEAR STANLEY, ID (LAT 44 24 44 LONG 115 07 51)											
JUN , 1980											
05...	1	1	0	0	0	0	30	<10	100	100	† <5

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	GROSS ALPHA, DIS-SOLVED (PCI/L AS U-NAT)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)
KOOTENAI RIVER BASIN							
12316800 - MISSION CREEK NEAR COPELAND, IDAHO (LAT 48 55 54 LONG 116 20 00)							
MAY , 1980							
29... *	39	4	.42	--	--	--	--
JUN							
03... *	48	2	.26	--	--	--	--
10... *	37	4	.40	--	--	--	--
16... *	37	1	.10	--	--	--	--
23... *	25	1	.07	--	--	--	--
SPOKANE RIVER BASIN							
12413100 - BOULDER CREEK AT MULLAN IDAHO (LAT 47 28 10 LONG 115 47 44)							
MAY , 1980							
22... *	34	9	.83	--	--	--	--
12413140 - PLACER CREEK AT WALLACE, IDAHO (LAT 47 27 50 LONG 115 56 10)							
MAY , 1980							
22... *	35	4	.38	--	--	--	--
12413700 - LATOUR CREEK NEAR CATALDO IDAHO (LAT 47 28 10 LONG 116 26 15)							
MAY , 1980							
23... *	180	9	4.4	--	--	--	--
30... *	153	7	2.9	--	--	--	--
12414400 - EAST FORK BIG CREEK NEAR CALDER, ID (LAT 47 18 07 LONG 116 07 05)							
MAY , 1980							
23... *	87	11	2.6	--	--	--	--
12415300 - MICA CREEK NEAR COEUR D ALENE IDAHO (LAT 47 36 00 LONG 116 53 00)							
MAY , 1980							
23... *	11	23	.68	<.3	<.3	.5	1.2
30... *	19	18	.93	--	--	--	--
PAYETTE RIVER BASIN							
13240000 - LAKE FK PAYETTE RIVER AB JUMBO CR NR MCCALL, ID (LAT 44 54 50 LONG 115 59 10)							
JUN , 1980							
10... *	545	2	2.9	--	--	--	--
13250600 - BIG WILLOW CREEK NEAR EMMETT, IDAHO (LAT 44 04 25 LONG 116 29 10)							
JUN , 1980							
06... *	40	9	.97	--	--	--	--
SALMON RIVER BASIN							
13297450 - LITTLE BOULDER CREEK NEAR CLAYTON IDAHO (LAT 44 05 57 LONG 114 26 56)							
MAY , 1980							
21... *	50	34	4.6	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	GROSS ALPHA, DIS-SOLVED (PCI/L AS U-NAT)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)
SALMON RIVER BASIN--Continued							
13298000 - EAST FORK SALMON RIVER NEAR CLAYTON, ID (LAT 44 13 29 LONG 114 17 06)							
MAY , 1980							
21...	* 795	114	245	--	--	--	--
CLEARWATER RIVER BASIN							
13339500 - LOLO CR NR GREER ID (LAT 46 22 20 LONG 116 09 40)							
MAY , 1980							
28...	*1270	58	199	--	--	--	--
JUN							
05...	* 951	25	64	--	--	--	--
13...	* 720	21	41	--	--	--	--
25...	* 393	66	70	--	--	--	--
JUL							
22...	* 126	70	24	--	--	--	--
13341300 - BLOOM CR NR BOVILL IDA (LAT 46 51 28 LONG 116 17 22)							
MAY , 1980							
22...	* 2.5	2	.02	--	--	--	--
13341500 - POTLATCH RIVER NR KENDRICK, IDAHO (LAT 46 36 50 LONG 116 39 40)							
MAY , 1980							
21...	* E100	25	--	--	--	--	--
PALOUSE RIVER BASIN							
13344800 - DEEP CREEK NEAR POTLATCH, IDAHO (LAT 46 57 38 LONG 116 56 04)							
MAY , 1980							
22...	* 5.8	150	2.3	3.3	<.7	3.3	2.5
13346800 - PARADISE CR AT UNIVERSITY OF IDAHO AT MOSCOW, ID (LAT 46 43 55 LONG 117 01 24)							
MAY , 1980							
22...	* 5.4	1443	21	56	<1.9	33	5.2

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT
SALMON RIVER BASIN												
442444115075100 - CAPE HORN LAKE NEAR STANLEY, ID (LAT 44 24 44 LONG 115 07 51)												
JUN , 1980												
05... ‡	1245	--	30	7.0	8.0	9.5	10	0	3.3	.4	1.8	26
PAYETTE RIVER BASIN												
450719116012801 - SITE B TOP, UPPER PAYETTE LAKE NR MCCALL, ID (LAT 45 07 19 LONG 116 01 28)												
JUN , 1980												
01... ‡	1125	--	11	6.7	9.0	4.0	--	--	1.2	<.0	.9	0
450719116012802 - SITE B.BOTTOM, UPPER PAYETTE LAKE NR MCCALL, ID (LAT 45 07 19 LONG 116 01 28)												
JUN , 1980												
01... ‡	1115	--	12	6.6	9.0	3.5	5	2	1.3	.3	.9	29
450813116005401 - SITE A.TOP, UPPER PAYETTE LAKE NR MCCALL, ID (LAT 45 08 13 LONG 116 00 54)												
JUN , 1980												
01... #	1050	--	13	5.9	9.0	3.5	--	--	1.3	<.0	.9	0
450813116005402 - SITE A,BOTTOM,UPPER PAYETTE LAKE, NR MCCALL, ID (LAT 45 08 13 LONG 116 00 54)												
JUN , 1980												
01... ‡	1040	--	12	6.4	9.0	3.0	3	1	1.3	.0	.9	35
PEND OREILLE RIVER BASIN												
481056116314401 - SITE A TOP, SHEPHERD LAKE NR SAGLE, ID (LAT 47 10 56 LONG 116 31 44)												
MAY , 1980												
30... ‡	1300	--	39	6.9	--	15.0	13	0	3.4	1.1	2.4	27
481056116314402 - SITE A BOTTOM, SHEPHERD LAKE NR SAGLE, ID (LAT 47 10 56 LONG 116 31 44)												
MAY , 1980												
30... ‡	1245	--	47	6.5	--	5.0	15	0	4.1	1.1	2.4	28
481122116312701 - SITE B TOP, SHEPHERD LAKE NEAR SAGLE, ID (LAT 48 11 22 LONG 116 31 27)												
MAY , 1980												
30... ‡	1450	--	39	7.3	--	15.0	13	0	3.4	.9	2.4	27
481122116312702 - SITE B BOTTOM, SHEPHERD LAKE NR SAGLE, ID (LAT 48 11 22 LONG 116 31 27)												
MAY , 1980												
30... ‡	1440	--	40	7.2	--	6.0	13	0	3.5	1.1	2.3	26

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
SALMON RIVER BASIN--Continued												
442444115075100 - CAPE HORN LAKE NEAR STANLEY, ID (LAT 44 24 44 LONG 115 07 51)												
JUN , 1980												
05...	.3	1.0	21	--	.7	.6	.1	15	35	36	.05	--
PAYETTE RIVER BASIN--Continued												
450719116012801 - SITE B TOP, UPPER PAYETTE LAKE NR MCCALL, ID (LAT 45 07 19 LONG 116 01 28)												
JUN , 1980												
01...	--	.2	5	1.9	4.0	.2	.0	6.5	15	--	.02	--
450719116012802 - SITE B.BOTTOM, UPPER PAYETTE LAKE NR MCCALL, ID (LAT 45 07 19 LONG 116 01 28)												
JUN , 1980												
01...	.2	.2	3	1.5	.9	.1	.0	6.7	16	13	.02	--
450813116005401 - SITE A.TOP, UPPER PAYETTE LAKE NR MCCALL, ID (LAT 45 08 13 LONG 116 00 54)												
JUN , 1980												
01...	--	.3	4	9.8	1.3	.2	.0	6.6	16	--	.02	--
450813116005402 - SITE A,BOTTOM,UPPER PAYETTE LAKE, NR MCCALL, ID (LAT 45 08 13 LONG 116 00 54)												
JUN , 1980												
01...	.2	.2	2	1.6	1.1	.3	.0	6.5	18	12	.02	--
PEND OREILLE RIVER BASIN--Continued												
481056116314401 - SITE A TOP, SHEPHERD LAKE NR SAGLE, ID (LAT 47 10 56 LONG 116 31 44)												
MAY , 1980												
30...	.3	1.0	15	3.7	.8	.4	.1	2.9	32	21	.04	--
481056116314402 - SITE A BOTTOM, SHEPHERD LAKE NR SAGLE, ID (LAT 47 10 56 LONG 116 31 44)												
MAY , 1980												
30...	.3	1.0	17	10	4.6	.6	.1	6.2	32	31	.04	--
481122116312701 - SITE B TOP, SHEPHERD LAKE NEAR SAGLE, ID (LAT 48 11 22 LONG 116 31 27)												
MAY , 1980												
30...	.3	1.2	16	1.6	1.8	.4	.1	2.9	32	23	.04	--
481122116312702 - SITE B BOTTOM, SHEPHERD LAKE NR SAGLE, ID (LAT 48 11 22 LONG 116 31 27)												
MAY , 1980												
30...	.3	1.0	16	2.0	1.0	.8	.1	3.5	31	23	.04	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)
SALMON RIVER BASIN--Continued								
442444115075100 - CAPE HORN LAKE NEAR STANLEY, ID (LAT 44 24 44 LONG 115 07 51)								
JUN , 1980								
05...	.05	.06	.070	.030	.08	.04	.36	.28
PAYETTE RIVER BASIN--Continued								
450719116012801 - SITE B TOP, UPPER PAYETTE LAKE NR MCCALL, ID (LAT 45 07 19 LONG 116 01 28)								
JUN , 1980								
01...	.03	.01	.000	.000	.00	.00	.60	.56
450719116012802 - SITE B.BOTTOM, UPPER PAYETTE LAKE NR MCCALL, ID (LAT 45 07 19 LONG 116 01 28)								
JUN , 1980								
01...	.02	.01	.000	.000	.00	.00	.30	.31
450813116005401 - SITE A.TOP, UPPER PAYETTE LAKE NR MCCALL, ID (LAT 45 08 13 LONG 116 00 54)								
JUN , 1980								
01...	.01	.01	.000	.000	.00	.00	.46	.31
450813116005402 - SITE A,BOTTOM,UPPER PAYETTE LAKE, NR MCCALL, ID (LAT 45 08 13 LONG 116 00 54)								
JUN , 1980								
01...	.08	.01	.000	.000	.00	.00	.42	.33
PEND OREILLE RIVER BASIN--Continued								
481056116314401 - SITE A TOP, SHEPHERD LAKE NR SAGLE, ID (LAT 47 10 56 LONG 116 31 44)								
MAY , 1980								
30...	.00	.00	.060	.020	.07	.03	.60	.65
481056116314402 - SITE A BOTTOM, SHEPHERD LAKE NR SAGLE, ID (LAT 47 10 56 LONG 116 31 44)								
MAY , 1980								
30...	.01	.00	.260	.220	.31	.28	.63	.67
481122116312701 - SITE B TOP, SHEPHERD LAKE NEAR SAGLE, ID (LAT 48 11 22 LONG 116 31 27)								
MAY , 1980								
30...	.03	.00	.000	.000	.00	.00	1.2	.66
481122116312702 - SITE B BOTTOM, SHEPHERD LAKE NR SAGLE, ID (LAT 48 11 22 LONG 116 31 27)								
MAY , 1980								
30...	.00	.00	.000	.020	.00	.03	.60	.54

ANALYSES OF SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS PO4)
SALMON RIVER BASIN--Continued								
442444115075100 - CAPE HORN LAKE NEAR STANLEY, ID (LAT 44 24 44 LONG 115 07 51)								
JUN , 1980								
05...	.43	.12	.31	.48	2.1	.010	.010	.03
PAYETTE RIVER BASIN--Continued								
450719116012801 - SITE B TOP, UPPER PAYETTE LAKE NR MCCALL, ID (LAT 45 07 19 LONG 116 01 28)								
JUN , 1980								
01...	.60	.04	.56	.63	2.8	.010	.000	.03
450719116012802 - SITE B,BOTTOM, UPPER PAYETTE LAKE NR MCCALL, ID (LAT 45 07 19 LONG 116 01 28)								
JUN , 1980								
01...	.30	.00	.31	.32	1.4	.010	.000	.03
450813116005401 - SITE A,TOP, UPPER PAYETTE LAKE NR MCCALL, ID (LAT 45 08 13 LONG 116 00 54)								
JUN , 1980								
01...	.46	.15	.31	.47	2.1	.010	.010	.03
450813116005402 - SITE A,BOTTOM,UPPER PAYETTE LAKE, NR MCCALL, ID (LAT 45 08 13 LONG 116 00 54)								
JUN , 1980								
01...	.42	.09	.33	.50	2.2	.010	.000	.03
PEND OREILLE RIVER BASIN--Continued								
481056116314401 - SITE A TOP, SHEPHERD LAKE NR SAGLE, ID (LAT 47 10 56 LONG 116 31 44)								
MAY , 1980								
30...	.66	.00	.67	.66	2.9	.010	.000	.03
481056116314402 - SITE A BOTTOM, SHEPHERD LAKE NR SAGLE, ID (LAT 47 10 56 LONG 116 31 44)								
MAY , 1980								
30...	.89	.00	.89	.90	4.0	.070	.020	.21
481122116312701 - SITE B TOP, SHEPHERD LAKE NEAR SAGLE, ID (LAT 48 11 22 LONG 116 31 27)								
MAY , 1980								
30...	1.2	.54	.66	1.2	5.4	.010	.000	.03
481122116312702 - SITE B BOTTOM, SHEPHERD LAKE NR SAGLE, ID (LAT 48 11 22 LONG 116 31 27)								
MAY , 1980								
30...	.60	.04	.56	.60	2.7	.020	.000	.06

ANALYSES OF SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, SUSPENDED RECOV. (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, TOTAL (UG/L AS SB)	ANTIMONY, SUSPENDED TOTAL (UG/L AS SB)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)
PAYETTE RIVER BASIN--Continued												
450719116012801 - SITE B TOP, UPPER PAYETTE LAKE NR MCCALL, ID (LAT 45 07 19 LONG 116 01 28)												
JUN , 1980 01...	150	70	<100	0	0	0	1	0	1	<100	0	†† 10
450719116012802 - SITE B,BOTTOM, UPPER PAYETTE LAKE NR MCCALL, ID (LAT 45 07 19 LONG 116 01 28)												
JUN , 1980 01...	<100	20	<100	0	0	0	2	1	1	<100	0	† 20
450813116005401 - SITE A,TOP, UPPER PAYETTE LAKE NR MCCALL, ID (LAT 45 08 13 LONG 116 00 54)												
JUN , 1980 01...	<100	0	100	0	0	0	1	0	1	<100	0	†† 10
450813116005402 - SITE A,BOTTOM,UPPER PAYETTE LAKE, NR MCCALL, ID (LAT 45 08 13 LONG 116 00 54)												
JUN , 1980 01...	<100	0	<100	0	0	0	2	0	2	<100	0	† 20
PEND OREILLE RIVER BASIN--continued												
481056116314401 - SITE A TOP, SHEPHERD LAKE NR SAGLE, ID (LAT 47 10 56 LONG 116 31 44)												
MAY , 1980 30...	<100	50	<100	0	0	0	1	0	1	<100	0	† 20
481056116314402 - SITE A BOTTOM, SHEPHERD LAKE NR SAGLE, ID (LAT 47 10 56 LONG 116 31 44)												
MAY , 1980 30...	<100	30	<100	0	0	0	6	5	1	<100	0	† 20
481122116312701 - SITE B TOP, SHEPHERD LAKE NEAR SAGLE, ID (LAT 48 11 22 LONG 116 31 27)												
MAY , 1980 30...	<100	50	<100	0	0	0	1	0	1	<100	0	† 20
481122116312702 - SITE B BOTTOM, SHEPHERD LAKE NR SAGLE, ID (LAT 48 11 22 LONG 116 31 27)												
MAY , 1980 30...	<100	60	<100	0	0	0	0	0	2	<100	0	† 20

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	BORON, SUS-PENDED RECOV-ERABLE (UG/L AS B)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO)
PAYETTE RIVER BASIN--Continued												
450719116012801 - SITE B TOP, UPPER PAYETTE LAKE NR MCCALL, ID (LAT 45 07 19 LONG 116 01 28)												
JUN , 1980 01...	<1	<100	20	<100	0	--	† <1	0	0	0	<5	--
450719116012802 - SITE B,BOTTOM, UPPER PAYETTE LAKE NR MCCALL, ID (LAT 45 07 19 LONG 116 01 28)												
JUN , 1980 01...	<1	<100	10	<100	1	--	† <1	0	0	0	<5	--
450813116005401 - SITE A,TOP, UPPER PAYETTE LAKE NR MCCALL, ID (LAT 45 08 13 LONG 116 00 54)												
JUN , 1980 01...	<1	<100	20	<100	1	--	† <1	0	0	0	<5	--
450813116005402 - SITE A,BOTTOM,UPPER PAYETTE LAKE, NR MCCALL, ID (LAT 45 08 13 LONG 116 00 54)												
JUN , 1980 01...	<1	<100	5	<100	1	--	† <1	0	0	0	<5	--
PEND OREILLE RIVER BASIN--Continued												
481056116314401 - SITE A TOP, SHEPHERD LAKE NR SAGLE, ID (LAT 47 10 56 LONG 116 31 44)												
MAY , 1980 30...	<1	<100	40	<100	1	--	† <1	0	0	0	<5	--
481056116314402 - SITE A BOTTOM, SHEPHERD LAKE NR SAGLE, ID (LAT 47 10 56 LONG 116 31 44)												
MAY , 1980 30...	<1	100	90	<100	1	--	† <1	0	0	0	<5	--
481122116312701 - SITE B TOP, SHEPHERD LAKE NEAR SAGLE, ID (LAT 48 11 22 LONG 116 31 27)												
MAY , 1980 30...	<1	<100	20	<100	1	--	† <1	0	0	0	<5	--
481122116312702 - SITE B BOTTOM, SHEPHERD LAKE NR SAGLE, ID (LAT 48 11 22 LONG 116 31 27)												
MAY , 1980 30...	<1	<100	10	<100	1	--	† <1	0	0	0	<5	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI)	LITHIUM SUS-PENDED RECOV-ERABLE (UG/L AS LI)
PAYETTE RIVER BASIN--Continued												
450719116012801 - SITE B TOP, UPPER PAYETTE LAKE NR MCCALL, ID (LAT 45 07 19 LONG 116 01 28)												
JUN., 1980 01...	† <5	10	--	† <10	60	40	20	<5	--	†<10	<10	--
450719116012802 - SITE B,BOTTOM, UPPER PAYETTE LAKE NR MCCALL, ID (LAT 45 07 19 LONG 116 01 28)												
JUN , 1980 01...	† <5	<10	--	† <10	50	30	20	<5	--	†<10	<10	--
450813116005401 - SITE A,TOP, UPPER PAYETTE LAKE NR MCCALL, ID (LAT 45 08 13 LONG 116 00 54)												
JUN , 1980 01...	† <5	<10	--	† <10	80	60	20	<5	--	†<10	<10	--
450813116005402 - SITE A,BOTTOM,UPPER PAYETTE LAKE, NR MCCALL, ID (LAT 45 08 13 LONG 116 00 54)												
JUN , 1980 01...	† <5	<10	--	† <10	110	90	20	<5	--	†<10	<10	--
PEND OREILLE RIVER BASIN--Continued												
481056116314401 - SITE A TOP, SHEPHERD LAKE NR SAGLE, ID (LAT 47 10 56 LONG 116 31 44)												
MAY , 1980 30...	† <5	<10	--	† <10	160	110	50	<5	--	†<10	<10	--
481056116314402 - SITE A BOTTOM, SHEPHERD LAKE NR SAGLE, ID (LAT 47 10 56 LONG 116 31 44)												
MAY , 1980 30...	† <5	<10	--	† <10	1700	1300	400	<5	--	†<10	<10	--
481122116312701 - SITE B TOP, SHEPHERD LAKE NEAR SAGLE, ID (LAT 48 11 22 LONG 116 31 27)												
MAY , 1980 30...	† <5	<10	--	† <10	160	80	80	<5	--	†<10	<10	--
481122116312702 - SITE B BOTTOM, SHEPHERD LAKE NR SAGLE, ID (LAT 48 11 22 LONG 116 31 27)												
MAY , 1980 30...	† <5	<10	--	† <10	260	140	120	<5	--	†<10	<10	--

ANALYSES OF SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, SUS-PENDED RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)
PAYETTE RIVER BASIN--Continued											
450719116012801 - SITE B TOP, UPPER PAYETTE LAKE NR MCCALL, ID (LAT 45 07 19 LONG 116 01 26)											
JUN , 1980											
01...	†<10	<50	0	† 2	<1.0	.1	.0	<10	<10	4	<10
450719116012802 - SITE B,BOTTOM, UPPER PAYETTE LAKE NR MCCALL, ID (LAT 45 07 19 LONG 116 01 28)											
JUN , 1980											
01...	†<10	<50	7	† 3	<1.0	.1	.0	<10	<10	2	<10
450813116005401 - SITE A,TOP, UPPER PAYETTE LAKE NR MCCALL, ID (LAT 45 08 13 LONG 116 00 54)											
JUN , 1980											
01...	†<10	<50	0	† 3	<1.0	.0	.0	<10	<10	1	<10
450813116005402 - SITE A,BOTTOM,UPPER PAYETTE LAKE, NR MCCALL, ID (LAT 45 08 13 LONG 116 00 54)											
JUN , 1980											
01...	†<10	<50	8	† 2	<1.0	.1	.0	<10	<10	1	<10
PEND OREILLE RIVER BASIN--Continued											
481056116314401 - SITE A TOP, SHEPHERD LAKE NR SAGLE, ID (LAT 47 10 56 LONG 116 31 44)											
MAY , 1980											
30...	†<10	<50	0	†12	<1.0	.1	.0	<10	<10	2	<10
481056116314402 - SITE A BOTTOM, SHEPHERD LAKE NR SAGLE, ID (LAT 47 10 56 LONG 116 31 44)											
MAY , 1980											
30...	†<10	220	0	†220	<1.0	.0	.0	<10	<10	3	<10
481122116312701 - SITE B TOP, SHEPHERD LAKE NEAR SAGLE, ID (LAT 48 11 22 LONG 116 31 27)											
MAY , 1980											
30...	†<10	<50	10	† 9	<1.0	.1	.0	<10	<10	1	<10
481122116312702 - SITE B BOTTOM, SHEPHERD LAKE NR SAGLE, ID (LAT 48 11 22 LONG 116 31 27)											
MAY , 1980											
30...	†<10	<50	1	[illegible]	<1.0	.2	.0	<10	<10	7	<10

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
PAYETTE RIVER BASIN--Continued											
450719116012801 - SITE B TOP, UPPER PAYETTE LAKE NR MCCALL, ID (LAT 45 07 19 LONG 116 01 28)											
JUN , 1980											
01...	0	0	0	0	0	0	10	<6.0	<50	10	† 6
450719116012802 - SITE B.BOTTOM, UPPER PAYETTE LAKE NR MCCALL, ID (LAT 45 07 19 LONG 116 01 28)											
JUN , 1980											
01...	0	0	0	0	0	0	20	<6.0	<50	9	†11
450813116005401 - SITE A.TOP, UPPER PAYETTE LAKE NR MCCALL, ID (LAT 45 08 13 LONG 116 00 54)											
JUN , 1980											
01...	0	0	0	0	0	0	10	<6.0	<50	10	† 7
450813116005402 - SITE A,BOTTOM,UPPER PAYETTE LAKE, NR MCCALL, ID (LAT 45 08 13 LONG 116 00 54)											
JUN , 1980											
01...	0	0	0	0	0	0	10	<6.0	310	310	†<5
PEND CREILLE RIVER BASIN--Continued											
481056116314401 - SITE A TOP, SHEPHERD LAKE NR SAGLE, ID (LAT 47 10 56 LONG 116 31 44)											
MAY , 1980											
30...	0	0	0	0	0	0	30	<6.0	<50	--	†<5
481056116314402 - SITE A BOTTOM, SHEPHERD LAKE NR SAGLE, ID (LAT 47 10 56 LONG 116 31 44)											
MAY , 1980											
30...	0	0	0	0	0	0	40	<6.0	<50	30	†<5
481122116312701 - SITE B TOP, SHEPHERD LAKE NEAR SAGLE, ID (LAT 48 11 22 LONG 116 31 27)											
MAY , 1980											
30...	0	0	0	0	0	0	30	<6.0	<50	--	†<5
481122116312702 - SITE B BOTTOM, SHEPHERD LAKE NR SAGLE, ID (LAT 48 11 22 LONG 116 31 27)											
MAY , 1980											
30...	0	0	0	0	0	0	30	<6.0	<50	30	†<5

* Samples collected at stations impacted by ashfall from the Mt. St. Helens May 18, 1980, eruption.
† The inductively coupled plasma atomic-emission spectroscopy analytical method was used.
‡ Profile samples collected from lakes impacted by ashfall from the Mt. St. Helens May 18, 1980, eruption.

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

Samples are collected at sites other than gaging stations and partial-record stations to give better areal coverage in a river basin. Such sites are referred to as miscellaneous sites.

KOOTENAI RIVER BASIN

12306500 - MOYIE RIVER AT EASTPORT, IDAHO (LAT 48 59 58 LONG 116 10 43)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
NOV , 1979						APR , 1980					
09...	1125	44	49	1.0	1.0	04...	1100	166	52	8.0	5.0
JAN , 1980						29...	1215	5800	27	9.0	5.5
02...	1135	113	47	1.5	2.5						

12321500 - BOUNDARY CREEK NEAR PORTHILL, IDAHO (LAT 48 59 50 LONG 116 34 05)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
OCT , 1979						APR , 1980					
01...	1025	17	53	14.0	8.0	03...	1015	46	39	12.0	3.0
NOV						JUL					
09...	1415	19	46	3.0	1.0	31...	1115	42	45	23.0	14.5
JAN , 1980											
02...	1435	50	38	2.5	1.5						

PEND OREILLE RIVER BASIN

12392000 - CLARK FORK AT WHITEHORSE RAPIDS NEAR CABINET, ID (LAT 48 05 18 LONG 116 04 16)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
NOV , 1979						APR , 1980					
06...	0925	22000	187	10.5	10.5	11...	0905	3020	216	5.5	6.0
DEC						JUN					
11...	0930	22200	162	-2.0	2.0	04...	1110	60100	157	15.0	11.0
FEB , 1980						SEP					
20...	0945	7760	203	4.5	4.0	18...	0900	11200	192	19.0	15.0

12392100 - TRAPPER CREEK NEAR CLARK FORK, IDAHO (LAT 48 15 57 LONG 116 07 00)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
JUN , 1980					
04...	0955	4.4	11	15.5	5.5

12392895 - BLANCHARD CR AB RES NR BLANCHARD ID (LAT 47 59 58 LONG 117 01 51)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
OCT , 1979						APR , 1980					
30...	1255	3.5	55	8.0	6.0	17...	0855	34	39	17.0	6.0
DEC						JUN					
12...	1400	5.7	70	5.0	5.0	06...	1320	32	39	14.5	9.0
FEB , 1980						JUL					
06...	1420	5.5	52	1.0	.5	31...	1410	2.5	32	31.5	21.0

12393600 - BINARCH CREEK NEAR COOLIN IDAHO (LAT 48 28 10 LONG 116 55 20)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
JUN , 1980					
05...	1055	9.5	35	15.5	9.5

12395500 - PEND OREILLE RIVER AT NEWPORT, WASH. (LAT 48 11 00 LONG 117 02 00)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
OCT , 1979						APR , 1980					
30...	0805	23900	148	10.0	9.5	17...	1000	12100	147	18.0	16.0
DEC						JUN					
12...	0920	16700	167	-.5	3.0	06...	1230	72100	150	17.5	13.5
FEB , 1980						JUL					
06...	1020	13000	193	4.5	.5	31...	1240	12400	159	27.0	22.0

SPOKANE RIVER BASIN

12411000 - COEUR D'ALENE R AB SHOSHONE CK NR PRICHARD, IDA (LAT 47 42 30 LONG 115 58 35)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
OCT , 1979						APR , 1980					
09...	1120	67	64	11.5	9.0	09...	1305	664	45	7.0	5.5
DEC						JUN					
04...	1245	198	44	--	1.0	24...	1140	684	55	17.0	12.0
FEB , 1980						AUG					
13...	1140	243	61	1.5	2.5	05...	1455	162	61	21.5	17.5

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

SPOKANE RIVER BASIN--Continued

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)
12413150 - SOUTH FORK COEUR D'ALENE RIVER AT SILVERTON, ID (LAT 47 28 20 LONG 115 57 00)											
OCT , 1979 09...	1405	45	175	20.5	9.5	JUN , 1980 25...	0940	320	100	16.0	11.0
APR , 1980 10...	0840	144	130	3.0	4.0	AUG 06...	0950	98	142	13.5	10.0
12414500 - ST JOE RIVER AT CALDER, ID (LAT 47 16 30 LONG 116 11 15)											
JUN , 1980 26...	0915	2520	56	15.0	10.5	AUG , 1980 06...	1425	680	62	25.5	17.5
12417650 - SPOKANE RIVER BL GIBBS NR COEUR D ALENE IDAHO (LAT 47 41 34 LONG 116 48 46)											
JUN , 1980 09...	1030	8240	56	18.5	13.5	AUG , 1980 25...	1100	868	62	29.5	19.0
12417725 - SPOKANE RIVER AT ATLAS NR COEUR D ALENE IDAHO (LAT 47 41 51 LONG 116 49 40)											
JUN , 1980 09...	1530	8430	56	18.5	15.0	AUG , 1980 25...	1530	920	62	30.0	19.0
12417850 - SPOKANE RIVER AB HARBOR ISLAND NR COEUR D ALENE (LAT 47 41 49 LONG 116 51 32)											
JUN , 1980 10...	1030	7540	54	26.0	15.0	AUG , 1980 26...	1030	895	62	18.0	19.0
12417925 - SPOKANE RIVER BL HARBOR ISLAND NR POST FALLS ID (LAT 47 41 43 LONG 116 52 52)											
JUN , 1980 10...	1445	7920	51	17.5	15.0	AUG , 1980 26...	1600	1410	--	24.0	21.0
12418000 - RATHDRUM PRAIRIE CANAL NEAR HUETTER, ID (LAT 47 42 35 LONG 116 52 05)											
MAY , 1980 28...	1130	24	68	14.0	12.5	JUL , 1980 25...	1215	43	560	33.5	23.5
12418025 - SPOKANE RIVER BL BLACK BAY NR POST FALLS IDAHO (LAT 47 41 52 LONG 116 53 51)											
JUN , 1980 11...	1030	8130	54	19.5	13.0	AUG , 1980 27...	0900	1590	63	13.5	19.0
12418200 - SPOKANE RIVER AT FORD ROCK NR POST FALLS IDAHO (LAT 47 42 05 LONG 116 55 38)											
JUN , 1980 11...	1500	7950	54	24.0	14.0	AUG , 1980 27...	1130	1660	63	16.5	19.0
12418300 - SPOKANE RIVER AT CROSSING AT POST FALLS IDAHO (LAT 47 42 16 LONG 116 56 53)											
JUN , 1980 12...	0910	7360	53	16.5	14.0	AUG , 1980 28...	0945	1660	62	14.0	19.0

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

LITTLE CANYON CREEK BASIN

13155300 - L CANYON CR AT STOUT CROSSING NR GLENNS FERRY ID (LAT 43 09 14 LONG 115 18 32)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
OCT , 1979 05...	1215	.24	82	22.5	10.0	MAY , 1980 23...	1130	16	38	12.0	9.0
JAN , 1980 18...	1500	10	55	-.5	4.5						

BROWNS CREEK BASIN

13157150 - BROWNS CR AT HIGHWAY 78 CROSSING NR HAMMETT ID (LAT 42 55 59 LONG 115 33 35)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
NOV , 1979 09...	1340	.21	937	9.0	9.5	JUL , 1980 30...	1300	1.1	759	23.0	20.5
JAN , 1980 24...	1040	.03	759	3.5	6.5	SEP 19...	1030	.89	846	15.5	13.5
MAY 23...	1250	.19	564	12.0	14.0						

BRUNEAU RIVER BASIN

13162300 - JARBRIDGE RIVER NR MURPHY HOT SPRINGS ID (LAT 42 00 30 LONG 115 25 00)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
OCT , 1979 12...	1450	9.3	--	25.0	13.0

13162500 - E FK JARBRIDGE RIVER NR THREE CREEK ID (LAT 42 02 00 LONG 115 22 20)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
OCT , 1979 12...	1400	10	--	25.0	13.0

13172290 - SINKER CR AB SCOTCH BOB CR NR MURPHY ID (LAT 43 03 52 LONG 116 38 03)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
OCT , 1979 04...	1440	<.01	144	25.5	20.0

SNAKE RIVER MAIN STEM

13172850 - SNAKE RIVER AT MARSING IDAHO (LAT 43 32 54 LONG 116 47 57)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
OCT , 1979 09...	1330	8480	--	23.0	16.5

BOISE RIVER BASIN

13184200 - ROARING RIVER NEAR ROCKY BAR, IDAHO (LAT 43 42 20 LONG 115 27 50)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
OCT , 1979 24...	1230	12	55	12.0	5.0	JUN , 1980 19...	1255	202	23	24.0	7.0

13184500 - MIDDLE FORK BOISE RIVER NEAR TWIN SPRING, ID (LAT 43 42 45 LONG 115 37 50)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
OCT , 1979 16...	1100	203	78	9.0	10.0	MAY , 1980 06...	1118	2730	38	19.0	6.0
NOV 14...	1230	146	94	6.5	1.0	JUN 19...	1445	2510	31	26.5	10.0
JAN , 1980 11...	1115	144	93	-5.0	.0	JUL 23...	1955	512	55	32.0	21.0
FEB 22...	1425	334	91	3.5	5.0	SEP 09...	1535	213	84	28.0	19.0
APR 17...	1240	853	75	24.5	7.0						

13184800 - BEAVER CREEK NR LOWMAN ID (LAT 43 58 20 LONG 115 36 30)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
OCT , 1979 02...	1106	2.3	108	11.5	7.0

13184955 - SHEEP CREEK AT MOUTH NR TWIN SPRINGS ID (LAT 43 41 45 LONG 115 39 38)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
OCT , 1979 02...	1230	12	--	22.0	13.0

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

BOISE RIVER BASIN--Continued

13190500 - S FK BOISE RIVER AT ANDERSON RANCH DAM ID (LAT 43 20 30 LONG 115 28 40)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
OCT , 1979						MAY , 1980					
19...	1430	415	83	9.0	11.0	13...	1145	2000	88	10.5	9.5
DEC						JUL					
13...	1424	324	99	2.0	6.5	15...	1300	1430	89	24.0	7.5
MAR , 1980						SEP					
18...	1045	347	110	1.5	4.5	09...	1345	1550	41	28.5	19.5

13199800 - GRIMES CREEK AT MOUTH NR IDAHO CITY, IDAHO (LAT 43 43 36 LONG 115 57 09)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
OCT , 1979					
02...	0942	13	113	8.5	11.0

13204800 - COTTONWOOD CREEK NEAR BOISE, IDAHO (LAT 43 36 59 LONG 116 09 30)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
OCT , 1979						FEB , 1980					
04...	0818	.16	138	4.0	9.5	20...	1518	20	95	3.0	7.0

13205500 - BOISE RIVER AT BOISE, IDAHO (LAT 43 36 33 LONG 116 12 27)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
OCT , 1979						MAY , 1980					
17...	1345	189	88	16.0	14.5	01...	1235	5020	87	18.0	8.0
NOV						09...	1227	5330	77	11.5	8.5
16...	1528	101	100	5.0	7.0	JUN					
JAN , 1980						17...	1425	2600	64	27.0	14.0
09...	1030	135	104	4.5	2.0	JUL					
FEB						14...	1545	1400	65	26.5	15.0
21...	1006	141	108	1.5	4.5	SEP					
APR						08...	1810	763	70	30.0	20.0
21...	1455	1100	91	26.0	10.5						
30...	1500	5100	88	18.5	7.0						

13205633 - CRANE CR AT 1206 RANCH RD AT BOISE ID (LAT 43 38 48 LONG 116 12 01)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
OCT , 1979						JUN , 1980					
22...	1400	.25	222	11.5	11.5	20...	1140	2.4	167	27.5	16.5
JAN , 1980						JUL					
07...	1415	1.4	195	-2.0	8.0	22...	1500	.42	262	38.0	22.0
APR						SEP					
21...	1140	4.8	112	22.0	12.0	11...	1120	1.1	365	18.0	18.5

13210000 - BOISE RIVER NEAR STAR, ID (LAT 43 40 54 LONG 116 29 17)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
FEB , 1980					
20...	0948	356	225	5.5	7.0

13210050 - BOISE RIVER NEAR MIDDLETON, ID (LAT 43 41 06 LONG 116 34 22)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
OCT , 1979						APR , 1980					
18...	1150	318	199	12.0	12.5	22...	1110	517	140	19.5	11.0
NOV						JUL					
16...	1220	242	268	4.5	6.0	28...	1540	272	151	34.0	21.0
JAN , 1980						SEP					
08...	1430	262	255	.0	2.0	17...	1055	239	193	17.0	15.5
FEB											
20...	0948	345	225	5.5	7.0						

13211345 - INDIAN CREEK AT LONE TREE LANE XING NR NAMPA, ID (LAT 43 38 03 LONG 116 38 11)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
OCT , 1979					
03...	1624	97	692	14.5	16.5

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

BOISE RIVER BASIN--Continued

13213072 - SAND RUN GULCH NEAR PARMA, ID (LAT 43 47 59 LONG 116 58 29)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
OCT , 1979						APR , 1980					
01...	1454	124	509	21.0	16.5	17...	1030	56	720	17.0	12.0
17...	1230	103	653	11.5	13.0	JUL					
NOV						21...	2130	121	508	26.0	25.5
27...	1200	79	757	-6.5	4.0	SEP					
JAN , 1980						22...	1805	125	650	23.0	16.5
07...	1315	73	701	.5	3.5						
FEB											
25...	1430	64	825	12.0	10.5						

SNAKE RIVER MAIN STEM

13213100 - SNAKE RIVER AT NYSSA, OR (LAT 43 52 34 LONG 116 59 02)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
NOV , 1979						JUN , 1980					
26...	1230	10300	624	2.0	5.5	11...	1200	33900	427	24.0	19.0
FEB , 1980						JUL					
25...	1215	10500	559	9.0	8.5	21...	1735	7450	496	33.5	26.0
APR						SEP					
14...	1430	12700	458	23.5	13.5	22...	1510	12200	574	21.5	17.0

PAYETTE RIVER BASIN

13234300 - FIVEMILE CREEK NEAR LOWMAN, IDAHO (LAT 44 06 20 LONG 115 27 30)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
OCT , 1979						JUN , 1980					
02...	1242	4.4	83	13.0	9.5	03...	1350	55	32	15.0	7.0

13234500 - CLEAR CREEK AT LOWMAN IDAHO (LAT 44 04 55 LONG 115 36 40)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
OCT , 1979					
03...	1040	30	65	10.0	4.5

13235000 - S FK PAYETTE RIVER AT LOWMAN ID (LAT 44 05 05 LONG 115 37 10)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
OCT , 1979						APR , 1980					
15...	1330	298	--	11.0	10.0	11...	1120	362	81	11.0	5.5
DEC						JUN					
10...	1430	281	87	1.5	2.5	03...	1420	1960	57	15.0	6.5
JAN , 1980						JUL					
08...	1315	254	--	.0	.0	22...	1300	983	56	31.0	14.5
FEB						SEP					
20...	1030	432	89	7.0	4.0	23...	1340	387	71	19.0	10.5

13235100 - ROCK CREEK AT LOWMAN, IDAHO (LAT 44 04 50 LONG 115 37 30)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
OCT , 1979					
02...	1154	5.5	127	10.0	7.0

13236500 - DEADWOOD RIVER BL DEADWOOD RES NR LOWMAN, ID (LAT 44 17 30 LONG 115 38 33)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
OCT , 1979						JAN , 1980					
10...	1405	2.1	--	16.5	13.5	24...	1350	2.0	--	.0	3.5
NOV						APR					
06...	1510	3.8	55	1.0	6.0	22...	0900	4.0	--	5.0	4.5

13237300 - DANSKIN CREEK NEAR GRIMES PASS, IDAHO (LAT 44 03 36 LONG 115 49 06)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
OCT , 1979					
02...	1424	1.5	238	11.5	10.5

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

PAYETTE RIVER BASIN--Continued

13237538 - BOILING SPRINGS L CH AT BOILING SPRINGS G S ID (LAT 44 21 50 LONG 115 22 22)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)
OCT , 1979						JUN , 1980					
16...	1230	.27	311	20.0	85.0	04...	1110	.21	469	15.5	41.5

13237600 - CABIN CR NR SMITHS FERRY IDAHO (LAT 44 20 53 LONG 115 47 21)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)
OCT , 1979					
03...	1030	.09	89	11.5	5.5

13245400 - TRIPOD CREEK AT SMITHS FERRY, IDAHO (LAT 44 17 55 LONG 116 05 17)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)
MAY , 1980					
19...	1315	30	36	21.5	4.0

13246000 - NORTH FORK PAYETTE RIVER NEAR BANKS, ID (LAT 44 06 50 LONG 116 06 25)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)
OCT , 1979						MAR , 1980					
23...	1410	208	--	14.0	8.0	24...	1230	394	59	7.0	4.5
NOV						MAY					
04...	1100	217	57	5.5	6.5	19...	1150	1260	39	20.0	12.0
13...	1120	85	64	2.5	1.5	JUN					
DEC						02...	1220	4970	34	9.0	12.0
14...	1000	215	58	-5.0	.0	SEP					
JAN , 1980						21...	1715	1560	--	--	15.0
31...	1100	228	62	-7.0	.0						

13247000 - PORTER CREEK NEAR GARDENA, IDAHO (LAT 43 56 00 LONG 116 11 00)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)
OCT , 1979					
03...	1324	.30	205	13.0	12.0

13247500 - PAYETTE RIVER NEAR HORSESHOE BEND, ID (LAT 43 56 33 LONG 116 11 45)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)
OCT , 1979						APR , 1980					
23...	1100	906	--	7.0	7.5	16...	1000	3930	59	10.5	7.0
NOV						JUN					
13...	1412	534	99	1.5	3.0	02...	1505	9760	43	17.0	11.0
19...	1230	647	674	3.5	3.5	JUL					
JAN , 1980						23...	1100	3320	50	28.0	17.5
09...	1045	812	94	.5	.0	SEP					
FEB						29...	1300	2300	45	21.5	15.0
22...	1215	2520	69	7.0	3.0						

13248900 - COTTONWOOD CREEK NEAR HORSESHOE BEND, IDAHO (LAT 43 53 35 LONG 116 12 09)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)
JAN , 1980						FEB , 1980					
14...	1430	37	85	9.0	6.0	22...	1415	16	93	6.5	5.0

13248970 - JOHNSON CREEK NEAR MONTOUR, IDAHO (LAT 43 55 03 LONG 116 21 13)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)
FEB , 1980					
21...	1400	3.3	81	7.0	4.5

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

PAYETTE RIVER BASIN--Continued

13249500 - PAYETTE RIVER NEAR EMMETT, IDAHO (LAT 43 55 50 LONG 116 26 30)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
OCT , 1979 31...	1230	1040	--	8.0	9.5	FEB , 1980 21...	1200	5020	72	7.0	4.0
NOV 20...	1520	953	108	10.0	3.5	APR 16...	1515	4300	76	22.0	10.0
DEC 19...	1130	424	113	2.0	2.0	JUN 05...	1200	8380	46	22.0	12.5
JAN , 1980 10...	1100	1240	98	1.5	1.0	SEP 25...	1350	1800	59	18.0	16.0

13250000 - PAYETTE RIVER NEAR LETHA, ID (LAT 43 53 00 LONG 116 37 00)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
OCT , 1979 31...	1630	977	--	13.5	10.5	JUN , 1980 09...	1145	7470	118	21.5	16.5
NOV 21...	1030	715	162	-1.0	3.0	AUG 05...	1420	995	88	31.0	22.0
FEB , 1980 19...	1130	3340	147	9.5	5.5	SEP 30...	1045	1230	76	13.0	15.0
APR 15...	0930	3480	119	11.5	9.5						

WEISER RIVER BASIN

13253500 - WEISER RIVER AT STARKEY, IDAHO (LAT 44 51 00 LONG 116 26 40)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
OCT , 1979 05...	0930	14	149	6.0	7.0

13260000 - PINE CREEK NEAR CAMBRIDGE, IDAHO (LAT 44 35 23 LONG 116 44 12)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
OCT , 1979 05...	1720	3.4	137	19.0	16.0

13261000 - LITTLE WEISER RIVER NEAR INDIAN VALLEY, IDAHO (LAT 44 29 22 LONG 116 23 23)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
OCT , 1979 05...	1450	4.5	115	23.0	13.0

BROWNLEE CREEK BASIN

13289600 - E BROWNLEE CREEK AT BROWNLEE RANGER STATION ID (LAT 44 44 08 LONG 116 50 15)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
OCT , 1979 05...	1630	1.6	228	14.0	10.0

WILDHORSE RIVER BASIN

13289800 - BEAR CREEK NEAR BEAR IDAHO (LAT 44 59 40 LONG 116 41 00)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
OCT , 1979 05...	1230	3.1	105	18.0	10.0

13289960 - WILDHORSE RIVER AT BROWNLEE DAM, ID (LAT 44 51 08 LONG 116 53 24)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
NOV , 1979 07...	1115	30	171	5.0	5.5	APR , 1980 24...	0918	799	76	14.5	7.5
DEC 11...	1230	34	186	-4.0	.0	JUL 22...	1000	54	176	28.0	16.5
JAN , 1980 22...	0900	78	142	.5	1.5	SEP 16...	1015	42	184	17.0	11.5
MAR 26...	1330	121	117	3.5	4.0						

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

PINE CREEK BASIN

13290190 - PINE CREEK NEAR OXBOW OREGON (LAT 44 57 13 LONG 116 52 21)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
OCT , 1979						APR , 1980					
23...	1350	102	261	12.5	9.0	23...	1815	1210	72	20.5	12.0
NOV						JUN					
27...	1315	77	148	-1.0	2.0	18...	1500	880	64	28.0	13.5
DEC						AUG					
19...	1521	113	129	6.5	3.0	27...	1600	32	177	24.5	21.5
JAN , 1980						SEP					
23...	0915	234	106	.5	3.0	16...	1630	100	197	27.5	18.0
FEB											
26...	1553	592	102	16.0	7.5						

SALMON RIVER BASIN

13297330 - THOMPSON CREEK NEAR CLAYTON IDAHO (LAT 44 15 36 LONG 114 30 50)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
OCT , 1979						MAY , 1980					
22...	1030	3.4	200	9.5	6.5	13...	1500	68	97	12.0	7.0
DEC						JUL					
19...	1000	3.1	212	-9.5	.0	09...	1040	24	95	16.5	10.0
JAN , 1980						SEP					
18...	0845	2.7	198	-2.5	1.0	12...	1405	5.5	177	21.0	13.5
MAR											
27...	1115	4.6	172	-1.0	2.0						

13297350 - BRUNO CREEK NEAR CLAYTON, IDAHO (LAT 44 17 56 LONG 114 28 50)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
OCT , 1979						MAY , 1980					
23...	1630	.32	417	11.0	8.0	13...	1750	7.4	156	8.5	6.5
DEC						JUL					
19...	1430	.24	424	3.0	1.5	09...	1522	1.5	270	25.5	12.5
JAN , 1980											
17...	1745	21	519	-2.0	7.5						

13297355 - SQUAW CREEK BELOW BRUNO CREEK NEAR CLAYTON, ID (LAT 44 17 26 LONG 114 28 15)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
OCT , 1979						MAY , 1980					
23...	1815	8.2	295	7.0	7.0	16...	1730	114	105	7.5	5.5
DEC						JUL					
19...	1300	8.0	208	2.5	.0	09...	1349	43	123	25.5	15.5
JAN , 1980						SEP					
17...	1700	9.6	247	2.0	1.5	12...	1200	15	177	13.0	9.5
MAR											
27...	1325	13	178	-1.0	2.0						

13297400 - E.F. SALMON R BL BOWERY G. S. NR CLAYTON, IDAHO (LAT 44 00 23 LONG 114 28 48)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
MAY , 1980					
22...	1030	632	--	23.0	5.5

13297404 - GERMANIA CREEK NEAR CLAYTON, IDAHO (LAT 44 02 21 LONG 114 27 40)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
MAY , 1980						JUN , 1980					
22...	1130	207	--	--	--	04...	1035	78	--	8.5	4.0
JUN						17...	0954	170	109	16.0	5.0
03...	1510	83	--	9.0	7.0						

13297500 - BIG BOULDER CREEK NEAR CLAYTON, IDAHO (LAT 44 05 58 LONG 114 26 24)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
MAY , 1980					
22...	1420	101	--	24.5	7.0

SALMON RIVER BASIN--Continued

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)	DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE, WATER (DEG C)
13297597 - HERD CR BL TRAIL GULCH NR CLAYTON ID (LAT 44 08 56 LONG 114 17 22)											
JUL , 1980						SEP , 1980					
11...	1305	105	155	24.0	11.0	10...	0911	26	192	12.0	9.0
13298500 - SALMON RIVER NEAR CHALLIS, IDAHO (LAT 44 22 43 LONG 114 15 18)											
OCT , 1979											
04...	1005	557	191	6.0	6.0						
13301700 - MORSE CREEK ABOVE DIVERSION NEAR MAY, ID (LAT 44 36 55 LONG 113 48 25)											
OCT , 1979						MAY , 1980					
04...	0840	6.7	62	-1.0	5.5	14...	1330	57	29	13.0	5.5
13305800 - HUGHES CREEK NEAR NORTH FORK, IDAHO (LAT 45 31 12 LONG 114 01 59)											
OCT , 1979											
03...	1150	4.1	66	12.0	7.0						
13306500 - PANTHER CREEK NR SHOUP, IDAHO (LAT 45 18 22 LONG 114 23 31)											
OCT , 1979											
03...	0950	70	102	3.0	5.5						
13307050 - OWL CREEK NEAR SHOUP IDAHO (LAT 45 19 07 LONG 114 26 52)											
OCT , 1979											
03...	1035	8.9	--	4.0	6.5						
13308500 - M FK SALMON RIVER NR CAPEHORN ID (LAT 44 25 00 LONG 115 11 00)											
OCT , 1979											
02...	1150	70	75	11.0	6.0						
13309000 - BEAR VALLEY CREEK NR CAPE HORN IDAHO (LAT 44 26 00 LONG 115 17 00)											
OCT , 1979											
03...	1300	84	102	20.0	5.0						
13310500 - S FK SALMON RIVER NR KNOX ID (LAT 44 39 15 LONG 115 42 05)											
OCT , 1979											
03...	1750	32	67	21.0	9.0						
13312300 - TRANSMOUNTAIN DIV NR KNOX ID (LAT 44 32 30 LONG 115 34 00)											
OCT , 1979											
03...	1505	.75	43	19.0	8.0						
13312500 - JOHNSON CREEK NR LANDMARK RANGER STATION IDAHO (LAT 44 40 56 LONG 115 32 24)											
OCT , 1979											
03...	1600	11	45	23.0	10.5						
13313500 - SECESH RIVER NEAR BURGDORF, IDAHO (LAT 45 13 59 LONG 115 48 36)											
OCT , 1979											
04...	1125	35	36	20.0	3.5						

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

SALMON RIVER BASIN--Continued

13316390 - RAPID RIVER AB HATCHERY, NR RIGGINS, IDAHO (LAT 45 21 05 LONG 116 23 52)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)
OCT , 1979					
04...	1800	71	171	21.0	9.5

13316600 - SLATE CREEK AT MOUTH AT SLATE CREEK, IDAHO (LAT 45 38 25 LONG 116 16 56)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)
OCT , 1979					
04...	1500	38	186	31.0	10.5

13317045 - WHITEBIRD CREEK, NEAR WHITEBIRD, IDAHO (LAT 45 47 23 LONG 116 18 17)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)
OCT , 1979					
04...	1615	6.0	149	29.0	17.5

CLEARWATER RIVER BASIN

13336000 - SELWAY RIVER AB MEADOW CREEK NR LOWELL IDAHO (LAT 46 02 46 LONG 115 17 27)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)
OCT , 1979					
06...	1645	2.9	67	15.5	10.0

13336450 - RACKCLIFF CREEK AT O'HARA GUARD STATION, ID (LAT 46 05 05 LONG 115 29 38)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)
JAN , 1980						APR , 1980					
02...	1542	5.8	34	1.0	2.5	26...	0820	35	23	11.0	6.5

13336650 - EF PAPOOSE CR NR POWELL RS (LAT 46 32 07 LONG 114 45 52)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)
OCT , 1979					
06...	0824	1.3	191	8.0	5.5

13336800 - WARM SPR CR NR POWELL RS (LAT 46 28 20 LONG 114 53 10)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)
OCT , 1979					
06...	0950	16	35	13.5	9.0

13336850 - WEIR CR NR POWELL RS (LAT 46 27 31 LONG 115 02 01)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)
OCT , 1979					
06...	1115	3.8	38	17.0	9.0

13337200 - RED HORSE CREEK NEAR ELK CITY, IDAHO (LAT 45 47 39 LONG 115 23 59)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)
OCT , 1979					
13...	0745	.75	44	7.0	4.0

13337540 - LEGGETT CREEK NEAR GOLDEN, IDAHO (LAT 45 49 36 LONG 115 37 35)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)
JAN , 1980						APR , 1980					
03...	0945	2.4	26	3.0	.5	26...	1135	29	18	15.0	7.5

13337700 - PEASLEY CREEK NEAR GOLDEN, IDAHO (LAT 45 49 05 LONG 115 49 01)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)
OCT , 1979						APR , 1980					
13...	1045	2.0	66	14.0	7.0	26...	1255	43	30	25.0	9.0
JAN , 1980											
03...	1125	4.9	53	6.0	1.0						

13338000 - SF CLEARWATER R NR GRANGEVILLE ID (LAT 45 54 49 LONG 116 00 17)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)
OCT , 1979					
07...	0943	131	44	10.0	16.0

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE, WATER (DEG C)
CLEARWATER RIVER BASIN--Continued											
13338200 - SALLEY ANN CR NR STITES ID (LAT 46 08 40 LONG 115 57 40)											
OCT , 1979 07...	1155	.29	110	20.0	11.5						
13339700 - CANAL GULCH CREEK AT PIERCE RANGER STATION, ID (LAT 46 29 50 LONG 115 47 30)											
OCT , 1979 13...	1400	.89	74	24.5	10.0	APR , 1980 19...	1245	28	36	20.0	8.0
JAN , 1980 04...	1350	4.5	55	2.0	.0						
13339900 - DEER CREEK NEAR OROFINO, IDAHO (LAT 46 29 30 LONG 116 10 30)											
JAN , 1980 04...	1530	.60	90	3.0	2.5	APR , 1980 19...	1105	4.5	56	17.0	9.5
13340000 - CLEARWATER RIVER AT OROFINO, IDAHO (LAT 46 28 43 LONG 116 15 23)											
OCT , 1979 20...	1155	2730	67	12.0	9.0	APR , 1980 12...	1135	5790	71	20.5	8.5
NOV 17...	1230	1190	90	8.0	4.5	JUN 17...	0750	24100	48	18.5	14.0
FEB , 1980 23...	1540	4950	77	11.0	4.0						
13340600 - N FK CLEARWATER R NR CANYON RANGER STATION ID (LAT 46 50 26 LONG 115 37 11)											
OCT , 1979 13...	1030	600	53	11.0	9.0	APR , 1980 13...	1220	3250	34	15.5	7.0
NOV 16...	1345	1310	48	5.0	1.0	JUN 17...	1245	5080	32	21.5	13.0
JAN , 1980 04...	1115	874	41	1.0	.0	AUG 12...	1415	1110	49	27.5	20.0
13341100 - COLD SPRINGS CREEK NEAR CRAIGMONT IDAHO (LAT 46 14 10 LONG 116 31 06)											
OCT , 1979 16...	1440	.48	269	8.0	7.0	APR , 1980 26...	1510	.01	246	23.5	21.0
13341120 - LONG HOLLOW CR AT NEZ PERCE ID (LAT 46 14 03 LONG 116 14 10)											
OCT , 1979 16...	1345	.31	405	7.5	6.5	APR , 1980 05...	1005	1.0	382	6.0	8.5
DEC 01...	1025	.46	430	1.0	.5	JUN 16...	1630	1.4	505	27.0	22.0
FEB , 1980 10...	1220	4.2	285	6.0	.5						
PALOUSE RIVER BASIN											
13350440 - COW CR AT GENESEE ID (LAT 46 32 40 LONG 116 55 37)											
DEC , 1979 01...	1345	.33	325	1.5	.0	MAR , 1980 09...	1715	22	269	5.5	4.5
FEB , 1980 02...	1332	1.5	352	5.5	.0	JUN 16...	1335	1.0	334	26.0	23.0

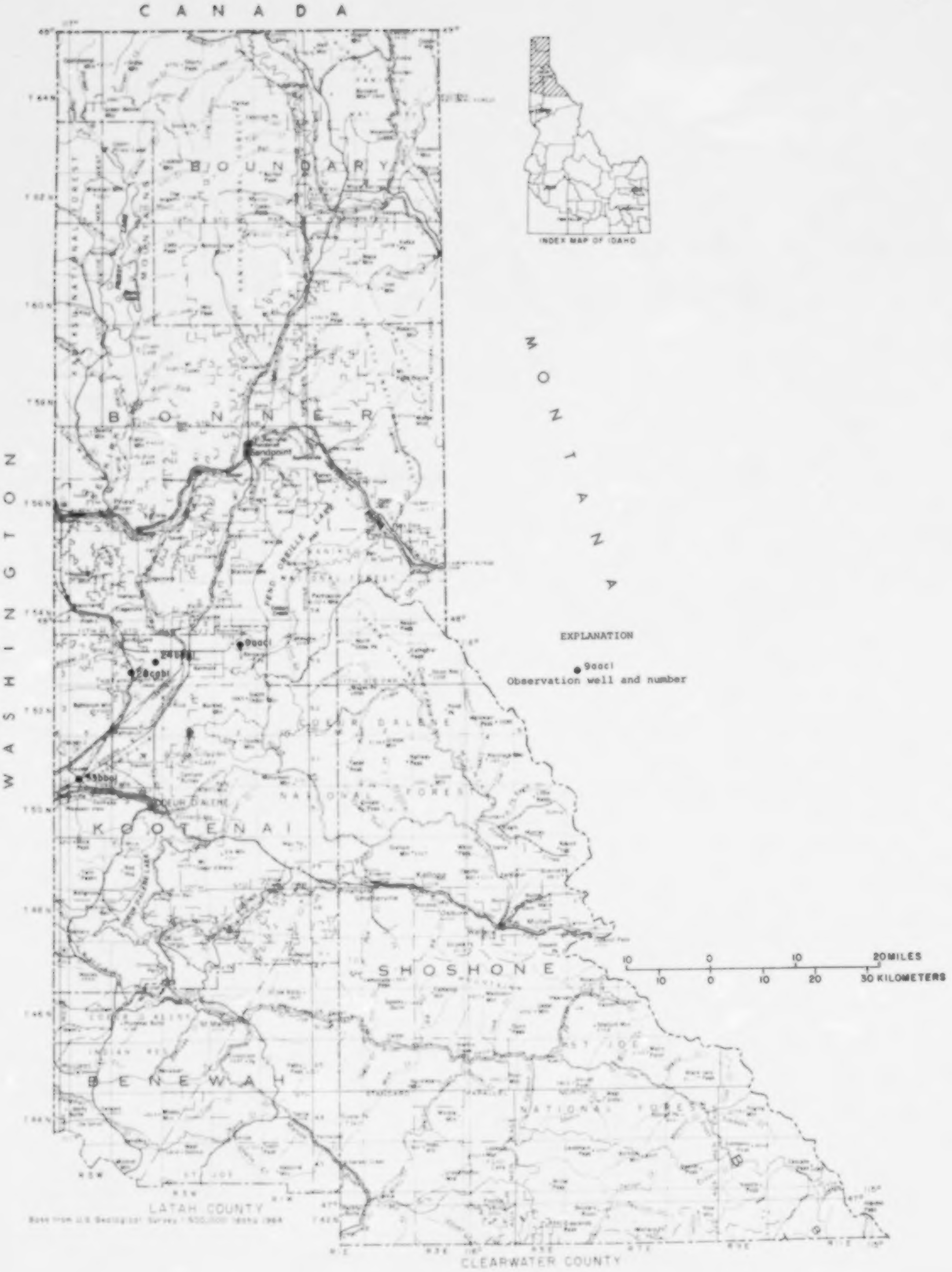

FIGURE 18.--Observation-well locations in north Idaho.

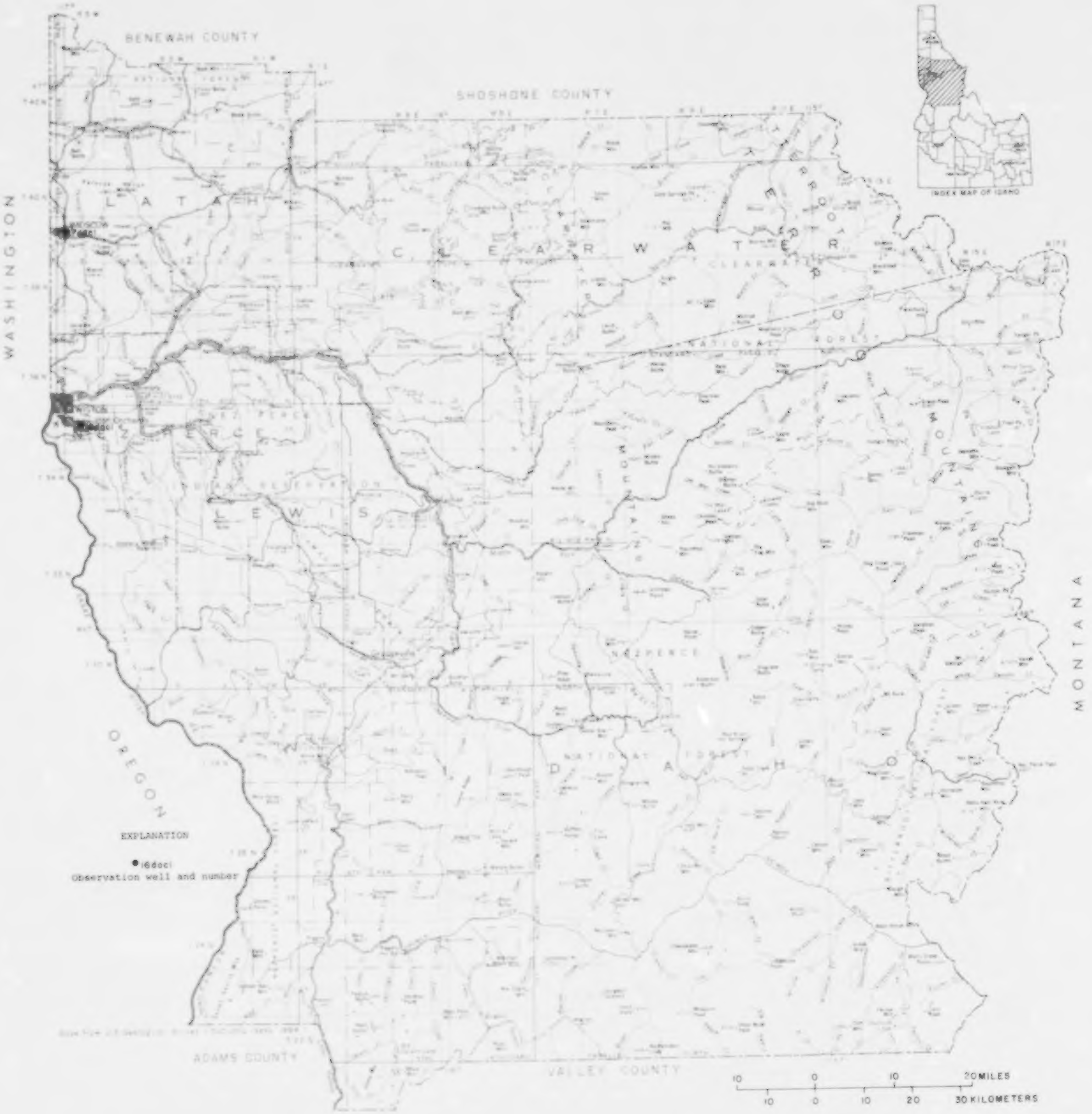

FIGURE 19.--Observation-well locations in north-central Idaho.

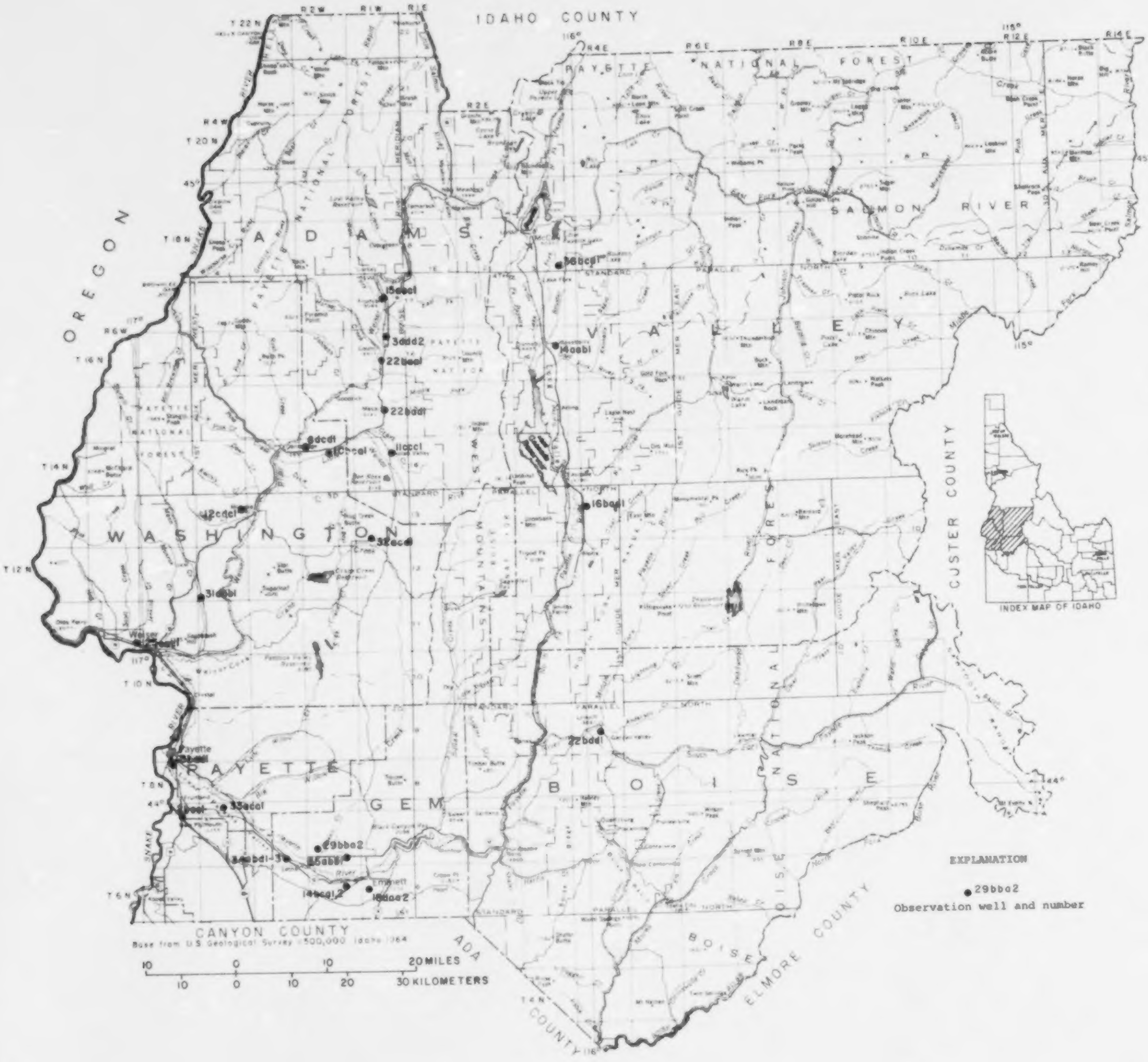

FIGURE 20.--Observation well locations in west-central Idaho.

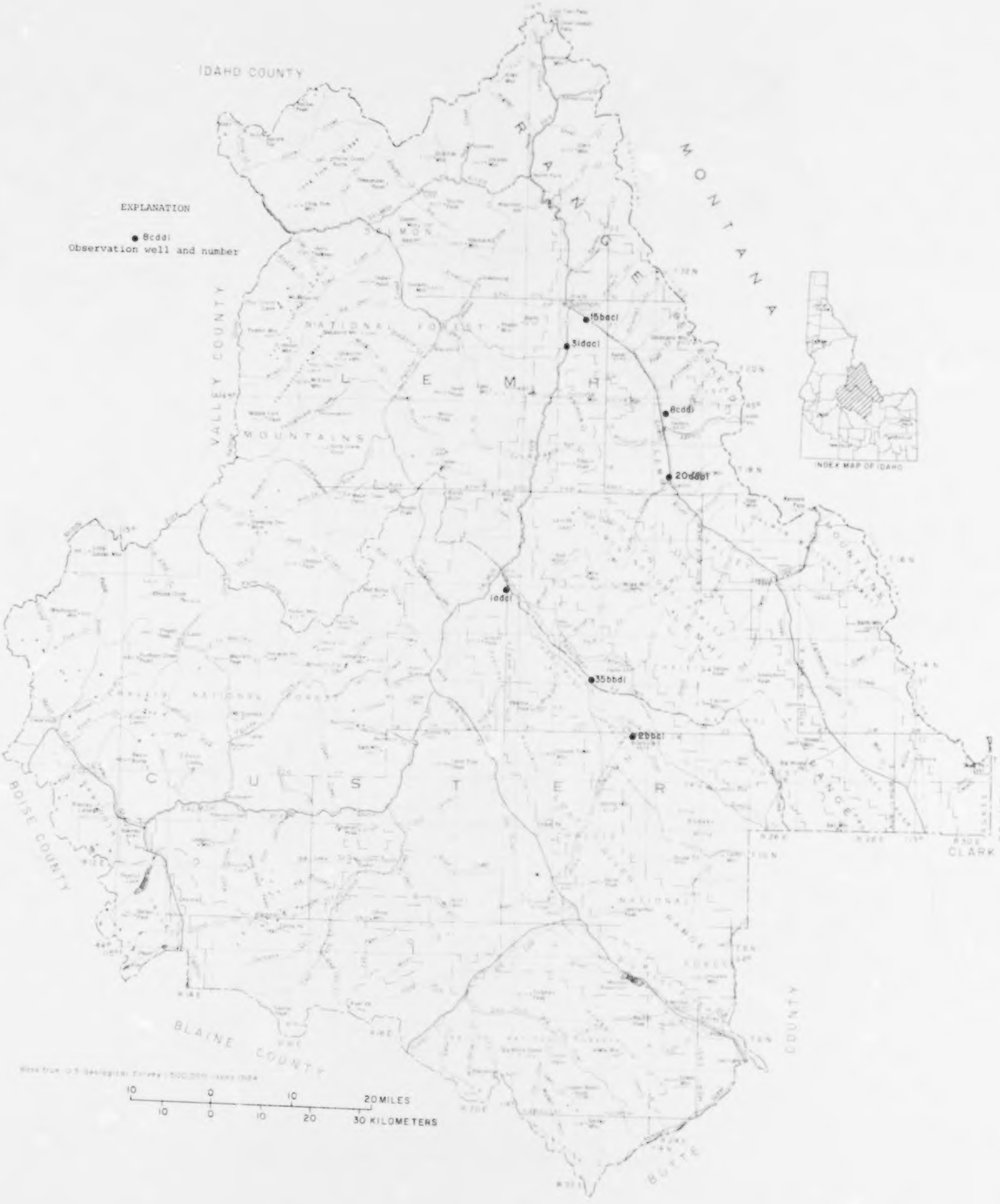

FIGURE 21.--Observation-well locations in east-central Idaho.

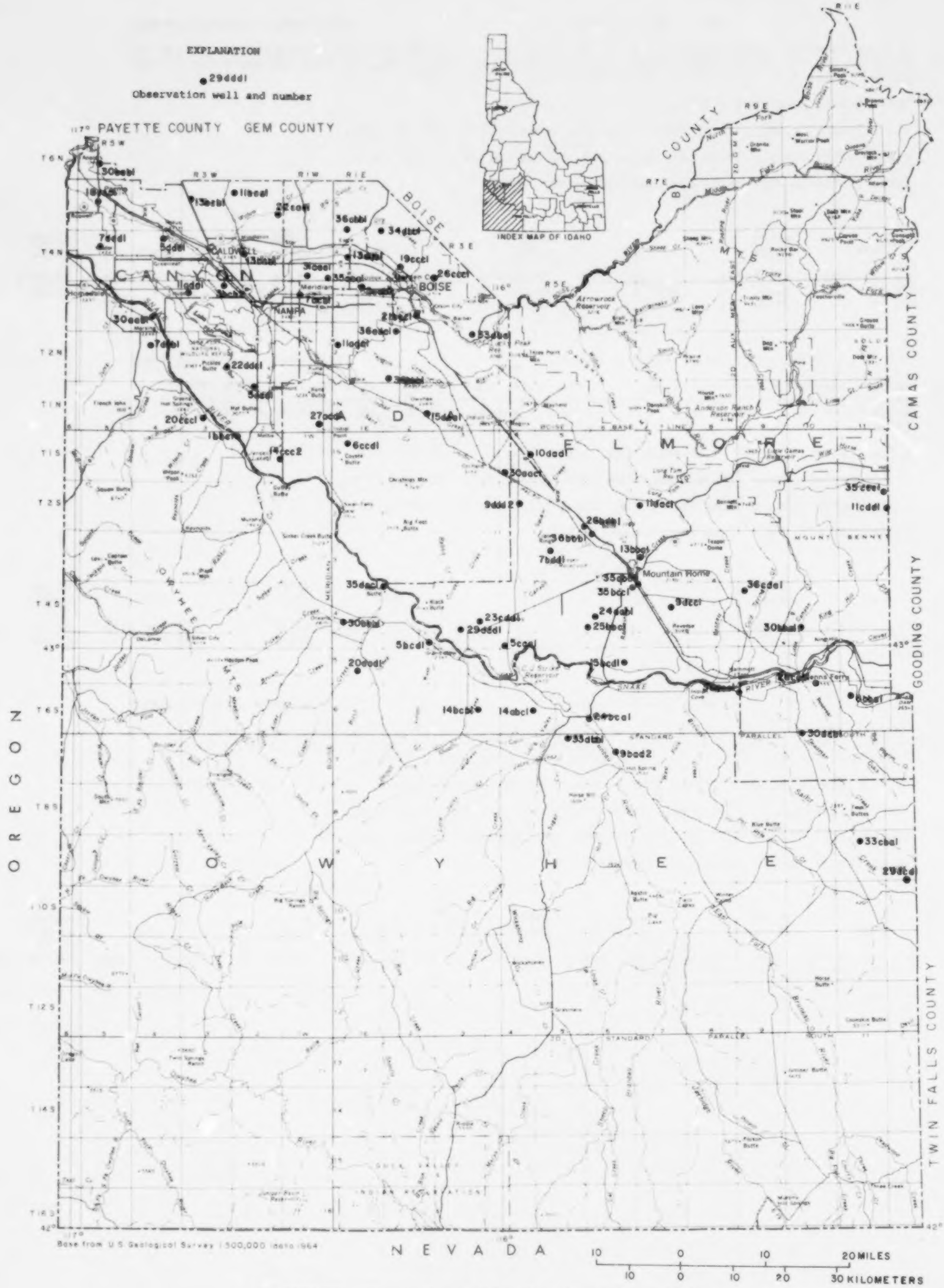

FIGURE 22.--Observation-well locations in southwest Idaho.

WELL 05N 01W 36ABB1 SITE NUMBER 434406116240801

DRILLED DOMESTIC WATER-TABLE WELL IN IDAHO GROUP, DIAM 6 IN (15 CM), REPORTED DEPTH 105 FT (32 M), CASED TO 105 FT (32 M), OPEN BOTTOM. LSD ABOUT 2,618 FT (798 M) NGVD OF 1929. MP NO. 1 TOP OF PIPE IN WELL SEAL, 0.70 FT (0.213 M) BELOW LSD (SINCE AUG. 27, 1969).

RECORDS AVAILABLE 1969 - 1977, 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 70.57 FEET BELOW LAND SURFACE DATUM SEP 11, 1974.

LOWEST WATER LEVEL 78.02 FEET BELOW LAND SURFACE DATUM MAY 18, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1979	72.96 P S	JAN 22, 1980	75.36 R S	MAY 16, 1980	77.42 S	AUG 04, 1980	73.39 R S
NOV 19	73.63 S	APR 10	77.19 S	JUL 16	79.65 P S	SEP 19	72.38 S
DEC 18	74.33 S						

WELL 05N 01E 34DBB1 SITE NUMBER 434341116192001

DRILLED IRRIGATION WATER-TABLE WELL IN IDAHO GROUP, DIAM 14 IN (36 CM), REPORTED DEPTH 175 FT (53 M), CASED 0-175 FT (0-53 M), PERFORATED 0-175 FT (0-53 M). LSD ABOUT 2,680 FT (817 M) NGVD OF 1929. MP NO. 1 DRILLED HOLE IN SOUTH SIDE OF CASING, 0.50 FT (0.152 M) ABOVE LSD (SINCE DEC. 16, 1966).

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 25.09 FEET BELOW LAND SURFACE DATUM SEP 22, 1972.

LOWEST WATER LEVEL 30.94 FEET BELOW LAND SURFACE DATUM APR 09, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1979	28.99 S	JAN 22, 1980	30.62 S	MAY 16, 1980	29.20 S	AUG 04, 1980	27.59 S
NOV 19	29.70 S	APR 09	30.94 S	JUL 16	26.84 S	SEP 19	27.60 S
DEC 18	30.18 S						

WELL 04N 01W 13DDB1 SITE NUMBER 434048116235101

DRILLED IRRIGATION ARTESIAN WELL IN GLENNS FERRY FORMATION, DIAM 3 IN (8 CM), DEPTH 130 FT (40 M), CASING DEPTH NOT AVAILABLE. LSD 2,524.96 FT (769.608 M) NGVD OF 1929. MP NO. 1 TOP OF 3-IN (8-CM) CASING, 1.30 FT (0.396 M) ABOVE LSD (SINCE MAR. 2, 1950).

RECORDS AVAILABLE 1950 - 1956, 1957 - 1966, 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 10.72 FEET ABOVE LAND SURFACE DATUM OCT 22, 1952.

LOWEST WATER LEVEL 5.10 FEET ABOVE LAND SURFACE DATUM SEP 28, 1951.

WATER LEVELS IN FEET ABOVE LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 19, 1979	8.32 E M	APR 09, 1980	7.33 E S	AUG 15, 1980	6.05 M	SEP 19, 1980	9.13 E M
JAN 22, 1980	7.26 M	MAY 27	7.74 M				

WELL 04N 01W 31AAA1 SITE NUMBER 433852116293401

DRILLED IRRIGATION ARTESIAN WELL IN IDAHO GROUP, DIAM 6 IN (15 CM), REPORTED DEPTH 462 FT (141 M), CASED 0-455 FT (0-139 M). LSD ABOUT 2,508 FT (764 M) NGVD OF 1929. MP NO. 1 TOP OF 6-IN (15-CM) CASING PLUG, 3.50 FT (1.067 M) ABOVE LSD (SINCE APR. 28, 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 30.62 FEET ABOVE LAND SURFACE DATUM DEC 04, 1968.

LOWEST WATER LEVEL 19.58 FEET ABOVE LAND SURFACE DATUM JUL 29, 1974.

WATER LEVELS IN FEET ABOVE LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 09, 1980	21.57 E M	SEP 15, 1980	15.60 E M

WELL 04N 01W 35AAA1 SITE NUMBER 433852116244801

DUG UNUSED WATER-TABLE WELL IN YOUNGER TERRACE GRAVEL, DIAM 24 IN (61 CM), DEPTH 44 FT (13 M), CASING DEPTH NOT AVAILABLE. LSD 2,570.60 FT (783.519 M) NGVD OF 1929, SUPPLEMENTARY ADJUSTMENT OF 1961. WATER LEVEL INFLUENCED BYLOCAL IRRIGATION. JULY 24, 1973, WELL HAD FILLED IN TO A DEPTH OF 32.2 FT (9.8 M). MEASUREMENTS MADEOCT. 13, 1933, THROUGH MAR. 1, 1947, AND NOV. 4, 1947, THROUGH MAR. 11, 1951, MADE BY NAMPA-MERIDIANIRRIGATION DISTRICT. RECORDER INSTALLED MAY 15, 1953. RECORDER CHANGED TO DIGITAL SEPT. 16, 1975. MP NO. 1 TOP OF CASING NORTH SIDE, 1.30 FT (0.396 M) ABOVE LSD (SINCE MAY 22, 1953).

RECORDS AVAILABLE 1933 - 1951, 1952, 1953 TO CURRENT YEAR.

HIGHEST WATER LEVEL 1.73 FEET BELOW LAND SURFACE DATUM JUL 10, 1974.

LOWEST WATER LEVEL 12.20 FEET BELOW LAND SURFACE DATUM MAR 15, 1935.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05, 1979	3.56	JAN 10, 1980	8.80	APR 20, 1980	10.08	JUL 05, 1980	3.65
10	4.36	15	8.69	23	10.25	10	3.39
15	5.17	20	8.43	25	10.19	15	3.53
20	5.49	25	8.46	28	9.89	20	3.27
25	5.85	30	8.77	30	9.72	25	3.69
26	5.98	FEB 20	9.24	MAY 05	9.16	28	3.16
31	6.29	25	9.14	10	8.70	31	3.32
NOV 05	6.62	29	9.14	15	5.32	AUG 05	3.54
10	6.88	MAR 05	9.21	20	4.88	10	3.03
15	7.19	10	9.34	25	4.99	15	3.76
20	7.45	15	9.37	27	5.01	20	13.08 P
25	7.58	20	9.36	31	5.13	25	3.14
30	7.77	25	9.44	JUN 05	5.57	31	2.59
DEC 05	7.78	27	9.54	10	5.06	SEP 05	12.02 P
10	7.97	29	9.43	15	4.83	10	7.85 P
15	8.12	31	9.52	20	4.68	15	3.38
20	8.33	APR 05	9.63	25	3.40	20	3.89
31	8.57	10	9.90	27	3.18	25	4.51
JAN 05, 1980	8.68	15	10.09	30	3.69	30	3.91

WELL 04N 02E 19CCC1 SITE NUMBER 433946116161401

DRILLED DOMESTIC WATER-TABLE WELL IN SAND OF QUATERNARY AGE, DIAM 6 IN (15 CM), REPORTED DEPTH 104 FT (32 M), CASED TO 97 FT (30 M). LSD ABOUT 2,621 FT (799 M) NGVD OF 1929. MP NO. 1 TOP OF 6-IN (15-CM) CASING, 0.90 FT (0.274 M) ABOVE LSD (SINCE JULY 28, 1970).

RECORDS AVAILABLE 1970 TO CURRENT YEAR.

HIGHEST WATER LEVEL 5.20 FEET BELOW LAND SURFACE DATUM SEP 15, 1980.

LOWEST WATER LEVEL 8.95 FEET BELOW LAND SURFACE DATUM JUL 28, 1970.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
APR 09, 1980	7.13 S	AUG 05, 1980	5.30 S	SEP 15, 1980	5.20 S

WELL 04N 02E 26CCC1 SITE NUMBER 433856116113001

DRILLED IRRIGATION WATER-TABLE WELL IN IDAHO GROUP, DIAM 12 IN (30 CM), REPORTED DEPTH 741 FT (226 M), CASED TO 741 FT (226 M), PERFORATED 210-741 FT (64-226 M). LSD 2,877.30 FT (877,001 M) NGVD OF 1929, SUPPLEMENTARY ADJUSTMENT OF 1961. FEB. 13, 1975, WELL HAD FILLED IN TO A DEPTH OF 730.19 FT (222.56 M). MP NO. 1 BOTTOM EDGE OF6 3/8-IN (16-CM) PIPE, 1.50 FT (0.457 M) ABOVE LSD (SINCE MAY 2, 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 81.13 FEET BELOW LAND SURFACE DATUM MAY 02, 1967.

LOWEST WATER LEVEL 192.05 FEET BELOW LAND SURFACE DATUM SEP 27, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
NOV 19, 1979	161.58	S	APR 10, 1980	117.55	S	MAY 16, 1980	131.30	T	AUG 06, 1980	193.49	P S
JAN 22, 1980	136.23	S									

WELL 03N 01E 05AAB2 SITE NUMBER 433802116213101

DRILLED OBSERVATION WATER-TABLE WELL IN YOUNGER TERRACE GRAVEL, DIAM 6 IN (15 CM), DEPTH 82.4 FT (25.1 M), PERFORATED, INTERVAL NOT AVAILABLE.LSD 2,616.02 FT (797.363 M) NGVD OF 1929. RECORDER INSTALLED SEPT. 24, 1953. RECORDER REMOVED NOV. 16, 1954. MP NO. 1 TOP OF 6-IN (15-CM) CASING SOUTH SIDE, 0.50 FT (0.152 M) ABOVE LSD (SINCE SEPT. 24, 1953).

RECORDS AVAILABLE 1953 - 1954, 1955 - 1970, 1971 TO CURRENT YEAR.

HIGHEST WATER LEVEL 3.24 FEET BELOW LAND SURFACE DATUM SEP 11, 1974.

LOWEST WATER LEVEL 16.04 FEET BELOW LAND SURFACE DATUM MAY 17, 1955.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
APR 09, 1980	13.10	S	AUG 04, 1980	5.54	S	SEP 15, 1980	3.70	S

WELL 03N 01E 36ADA1 SITE NUMBER 433322116162601

DRILLED DOMESTIC WATER-TABLE WELL IN OLDER TERRACE GRAVEL, DIAM 4 IN (10 CM), REPORTED DEPTH 330 FT (101 M), CASED TO 330 FT (101 M), PERFORATED 276-292 FT (84-89 M). LSD 2,820.36 FT (859.646 M) NGVD OF 1929. MP NO. 2 TOP OF 8-IN (20-CM) CONCRETE CASING SOUTHWEST SIDE, 1.00 FT (0.305 M) ABOVE LSD (SINCE APR. 25, 1958).

RECORDS AVAILABLE 1953 TO CURRENT YEAR.

HIGHEST WATER LEVEL 115.06 FEET BELOW LAND SURFACE DATUM SEP 12, 1980.

LOWEST WATER LEVEL 126.11 FEET BELOW LAND SURFACE DATUM APR 26, 1955.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	
SEP 12, 1980	115.06	S

WELL 03N 02E 21BCC1 SITE NUMBER 433502116135201

DRILLED UNUSED WATER-TABLE WELL IN SAND AND GRAVEL OF TERTIARY AGE, DIAM 14 IN (36 CM), DEPTH 58 FT (18 M), PERFORATED, INTERVAL NOT AVAILABLE. LSD 2,751.09 FT (838.532 M) NGVD OF 1929. MP NO. 3 TOP OF 1 1/2-IN (3.8-CM) PIPE EAST SIDE, 2.18 FT (0.664 M) ABOVE LSD (SINCE JAN. 24, 1975).

RECORDS AVAILABLE 1947 - 1950, 1951 - 1970, 1971 TO CURRENT YEAR.

HIGHEST WATER LEVEL 0.34 FEET BELOW LAND SURFACE DATUM AUG 18, 1955.

LOWEST WATER LEVEL 16.55 FEET BELOW LAND SURFACE DATUM MAR 28, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 19, 1979	8.45 S	APR 09, 1980	13.92 S	JUL 15, 1980	10.85 S	SEP 12, 1980	8.55 S
JAN 24, 1980	11.73 S	MAY 16	13.67 S	AUG 15	9.16 S		

WELL 03N 03E 33DAA1 SITE NUMBER 433311116054501

DRILLED DOMESTIC WATER-TABLE WELL IN IDAHO GROUP, DIAM 6 IN (15 CM), REPORTED DEPTH 127 FT (39 M), CASED TO 120 FT (37 M). LSD 2,862.30 FT (872.469 M) NGVD OF 1929, SUPPLEMENTARY ADJUSTMENT OF 1961. MP NO. 1 TOP OF ELECTRIC INLET BOX IN CASING CAP, 1.70 FT (0.518 M) ABOVE LSD (SINCE AUG. 25, 1969).

RECORDS AVAILABLE 1969 TO CURRENT YEAR.

HIGHEST WATER LEVEL 52.45 FEET BELOW LAND SURFACE DATUM MAR 16, 1972.

LOWEST WATER LEVEL 57.88 FEET BELOW LAND SURFACE DATUM SEP 11, 1974.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1979	55.27 S	JAN 22, 1980	55.08 R S	MAY 16, 1980	52.70 S	AUG 15, 1980	56.73 S
NOV 19	55.09 S	APR 08	53.03 S	JUL 14	56.11 R S	SEP 12	54.14 S
DEC 18	55.84 S						

WELL 02N 01W 11ADA1 SITE NUMBER 433143116245101

DRILLED IRRIGATION WATER-TABLE WELL IN OLDER TERRACE GRAVEL, DIAM 16 IN (41 CM), REPORTED DEPTH 130 FT (40 M), CASED TO 120 FT (37 M), PERFORATED60-116 FT (20-35 M), LSD ABOUT 2,685 FT (818 M) NGVD OF 1929. MP NO. 2 BOTTOM EDGE OF HOLE INPUMPBASE SOUTH SIDE, 0.60 FT (0.183 M) ABOVE LSD (SINCE DEC. 4, 1968).

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 63.47 FEET BELOW LAND SURFACE DATUM SEP 27, 1971.

LOWEST WATER LEVEL 98.69 FEET BELOW LAND SURFACE DATUM MAY 19, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
APR 10, 1980	80.98 S	AUG 05, 1980	76.35 S	SEP 05, 1980	64.19 S

WELL 02N 01E 36BBB1 SITE NUMBER 432825116173501

DRILLED STOCK WATER-TABLE WELL IN IDAHO GROUP, DIAM 6 IN (15 CM), DEPTH 305 FT (93 M), CASED TO 300 FT (91 M). LSD ABOUT 2,867 FT (874 M) NGVD OF1929. MP NO. 1 TOP OF 6-IN (15-CM) THREAD PROTECTOR NORTHEAST SIDE, 1.20 FT (0.366 M) ABOVE LSD (SINCE NOV. 28, 1969).

RECORDS AVAILABLE 1969 TO CURRENT YEAR.

HIGHEST WATER LEVEL 249.83 FEET BELOW LAND SURFACE DATUM JAN 31, 1974.

LOWEST WATER LEVEL 258.70 FEET BELOW LAND SURFACE DATUM SEP 14, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
NOV 15, 1979	256.17	S	APR 08, 1980	254.32	S	JUL 15, 1980	256.41	S	SEP 16, 1980	257.75	S
JAN 22, 1980	254.78	S	MAY 19	255.03	S	AUG 14	257.09	S			

WELL 01N 01W 27ADD1 SITE NUMBER 432344116255901

DRILLED UNUSED WATER-TABLE WELL IN OLDER TERRACE GRAVEL, DIAM 20 TO 16 IN (50 TO 41 CM), REPORTED DEPTH 500 FT (152.4 M), 20-IN (50-CM) CASING 0-21 FT (0-6.4 M), 16-IN (41-CM) CASING 21-498 FT (6.4-151.7 M). LSD ABOUT 2,904 FT (885 M) NGVD OF 1929. MP NO. 2 TOP OF HOLE IN WELL SEAL, 3.00 FT (0.914 M) ABOVE LSD (SINCE AUG. 14, 1980).

RECORDS AVAILABLE 1976, 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 345.50 FEET BELOW LAND SURFACE DATUM APR 05, 1976.

LOWEST WATER LEVEL 361.35 FEET BELOW LAND SURFACE DATUM AUG 14, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
OCT 16, 1979	356.83 P	S	DEC 18, 1979	351.25	S	JAN 22, 1980	351.76 P	S	AUG 14, 1980	361.35	S
NOV 15	352.25	S									

WELL 01N 02E 15DCA1 SITE NUMBER 432504116115901

DRILLED UNUSED WATER-TABLE WELL IN IDAHO GROUP, DIAM 6 IN (15 CM), REPORTED DEPTH 600 FT (183 M), CASING DEPTH NOT AVAILABLE. LSD ABOUT 2,970 FT (905 M) NGVD OF 1929. MP NO. 3 TOP OF WEST 8X16-IN (20X41-CM) TIMBER EAST EDGE, 1.40 FT (0.427 M) ABOVE LSD (SINCE MAY 14, 1970).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 361.43 FEET BELOW LAND SURFACE DATUM NOV 28, 1967.

LOWEST WATER LEVEL 366.50 FEET BELOW LAND SURFACE DATUM NOV 15, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
NOV 15, 1979	366.50	S	MAR 13, 1980	365.85	S	JUL 15, 1980	366.31	S	SEP 12, 1980	366.32	S
JAN 22, 1980	366.37	S	MAY 19	365.90	S						

WELL 01S 01E 06CCD1 SITE NUMBER 432127116231701

DRILLED UNUSED WATER-TABLE WELL IN IDAHO GROUP, DIAM 16 IN (41 CM), DEPTH 597 FT (182 M), CASED TO 597 FT (182 M), PERFORATED 442-487 FT (135-148 M), 530-582 FT (162-177 M), 585-597 FT (178-182 M). LSD ABOUT 2,965 FT (904 M) NGVD OF 1929. MAY 19, 1967, WELL HAD FILLED IN TO A DEPTH OF 560.3 FT (170.8 M). RECORDER INSTALLED MAY 22, 1967. RECORDER REMOVED SEPT. 27, 1971. MP NO. 1 TOP OF 16-IN (41-CM) CASING NORTHEAST SIDE, 0.90 FT (0.274 M) ABOVE LSD (SINCE DEC. 28, 1966).

RECORDS AVAILABLE 1966, 1967 - 1971, 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 433.30 FEET BELOW LAND SURFACE DATUM APR 24, 1974.

LOWEST WATER LEVEL 436.02 FEET BELOW LAND SURFACE DATUM DEC 28, 1966.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
MAR 19, 1980	434.42	S	AUG 14, 1980	434.13	S	SEP 18, 1980	434.13	S

WELL 01S 04E 30AAC1 SITE NUMBER 431839116010701

DRILLED UNUSED WATER-TABLE WELL IN BRUNEAU FORMATION, DIAM 12 IN (30 CM), DEPTH 750 FT (229 M), CASED TO 550 FT (168 M). LSD ABOUT 3,150 FT (960 M) NGVD OF 1929. MAY 24, 1967, WELL HAD FILLED IN TO A DEPTH OF 636.8 FT (194.1 M). RECORDER INSTALLED JUNE 5, 1967. RECORDER REMOVED NOV. 23, 1971. MP NO. 2 TOP OF CASING EAST SIDE, 3.00 FT (0.914 M) ABOVE LSD (SINCE JUNE 1, 1967).

RECORDS AVAILABLE 1967 - 1971, 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 483.39 FEET BELOW LAND SURFACE DATUM AUG 12, 1980.

LOWEST WATER LEVEL 487.98 FEET BELOW LAND SURFACE DATUM OCT 15, 1967.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
NOV 15, 1979	483.88	S	MAR 12, 1980	483.62	S	JUL 14, 1980	483.49	S	SEP 08, 1980	483.46	S
JAN 21, 1980	483.99	S	MAY 14	483.49	S	AUG 12	483.39	S			

WELL 02S 04E 09DDD2 SITE NUMBER 431534115583502

DRILLED UNUSED WATER-TABLE WELL IN BRUNEAU FORMATION, DIAM 6 IN (15 CM), REPORTED DEPTH 600 FT (183 M), CASED TO 226 FT (69 M). LSD ABOUT 3,122 FT (952 M) NGVD OF 1929. JAN. 9, 1969, WELL HAD FILLED IN TO A DEPTH OF 570 FT (174 M). MP NO. 1 TOPOF 6-IN (15-CM) CASING, 0.80 FT (0.224 M) ABOVE LSD (SINCE DEC. 21, 1960).

RECORDS AVAILABLE 1960, 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 418.71 FEET BELOW LAND SURFACE DATUM SEP 19, 1977.

LOWEST WATER LEVEL 422.28 FEET BELOW LAND SURFACE DATUM DEC 21, 1960.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
NOV 15, 1979	420.66	S	MAR 12, 1980	420.57	S	JUL 14, 1980	420.64	S	SEP 08, 1980	420.96	S
JAN 21, 1980	420.84	S	MAY 14	420.43	S	AUG 12	420.58	S			

WELL 17N 01W 15AAC1 SITE NUMBER 444854116262301

DRILLED DOMESTIC WATER-TABLE WELL IN SEDIMENTS OF TERTIARY AGE. DIAM 6 IN (15 CM). REPORTED DEPTH 131 FT (39.9 M). CASED TO 109 FT (33.2 M). LSD ABOUT 3,115 FT (949 M) NGVD OF 1929. MP NO. 1 TOP OF 6-IN (15-CM) CASING, 1.50 FT (0.457 M) ABOVE LSD (SINCE APR. 4, 1974).

RECORDS AVAILABLE 1974 - 1975, 1976 TO CURRENT YEAR.

HIGHEST WATER LEVEL 95.07 FEET BELOW LAND SURFACE DATUM MAY 15, 1974.

LOWEST WATER LEVEL 100.33 FEET BELOW LAND SURFACE DATUM DEC 06, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 07, 1979	97.90 S	JAN 22, 1980	98.00 S	MAY 21, 1980	96.75 R S	SEP 18, 1980	97.54 S
DEC 11	100.75 R S	MAR 26	98.27 R S	JUL 17	98.03 S		

WELL 16N 01W 03DDD2 SITE NUMBER 444447116255701

DRILLED UNUSED WATER-TABLE WELL IN SEMICONSOLIDATED GRAVEL OF QUATERNARY AGE. DIAM 12 IN (30 CM). DEPTH 78.6 FT (24.0 M). CASED TO 7 FT (2 M). PERFORATED 2-6 FT (0.6-1.8 M). LSD ABOUT 2,985 FT (910 M) NGVD OF 1929. MP NO. 1 TOP OF 12-IN (30-CM) CASING SOUTH SIDE, 0.80 FT (0.244 M) ABOVE LSD (SINCE NOV. 30, 1961).

RECORDS AVAILABLE 1961, 1967 - 1973, 1974 - 1975, 1976 TO CURRENT YEAR.

HIGHEST WATER LEVEL 0.25 FEET BELOW LAND SURFACE DATUM MAR 06, 1979.

LOWEST WATER LEVEL 17.07 FEET BELOW LAND SURFACE DATUM SEP 20, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 07, 1979	3.50 S	JAN 22, 1980	1.88 S	MAY 21, 1980	3.56 S	SEP 18, 1980	7.82 S
DEC 11	2.06 S	MAR 26	1.83 S	JUL 17	9.30 S		

WELL 16N 01W 22BAA1 SITE NUMBER 444256116263401

DRILLED IRRIGATION WATER-TABLE WELL IN COLUMBIA RIVER GROUP. DIAM 10 IN (25 CM). REPORTED DEPTH 390 FT (118.9 M). CASED TO 28 FT (8.5 M). LSD ABOUT 2,950 FT (899 M) NGVD OF 1929. MP NO. 1 HOLE IN CASING COVER EAST SIDE, 0.40 FT (0.121 M) ABOVE LSD (SINCE JULY 9, 1974).

RECORDS AVAILABLE 1974, 1975, 1976 TO CURRENT YEAR.

HIGHEST WATER LEVEL 56.33 FEET BELOW LAND SURFACE DATUM APR 30, 1976.

LOWEST WATER LEVEL 62.88 FEET BELOW LAND SURFACE DATUM AUG 03, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 07, 1979	61.37 S	JAN 22, 1980	59.32 S	MAY 21, 1980	157.36 P S	SEP 18, 1980	62.02 S
DEC 11	60.30 S	MAR 26	58.15 S	JUL 17	157.73 P S		

WELL 15N 01W 22BAD1 SITE NUMBER 443736116263701

DRILLED DOMESTIC WATER-TABLE WELL IN SEDIMENTS OF QUATERNARY AGE, DIAM 8 IN (20.3 CM), REPORTED DEPTH 175 FT (53.3 M), CASED TO 84 FT (25.6 M), LSD ABOUT 3,260 FT (993 M) NGVD OF 1929. MP NO. 1 TOP OF CASING NORTHEAST SIDE, 0.50 FT (0.152 M) ABOVE LSD (SINCE APR. 17, 1975).

RECORDS AVAILABLE 1975, 1976 TO CURRENT YEAR.

HIGHEST WATER LEVEL 112.61 FEET BELOW LAND SURFACE DATUM APR 17, 1975.

LOWEST WATER LEVEL 121.04 FEET BELOW LAND SURFACE DATUM JUL 17, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 07, 1979	120.19 R S	JAN 22, 1980	120.70 R S	MAY 21, 1980	120.64 R S	SEP 18, 1980	120.53 S
DEC 11	120.62 R S	MAR 26	121.06 R S	JUL 17	121.04 S		

WELL 14N 01W 11CCC1 SITE NUMBER 443332116255501

DRILLED DOMESTIC WATER-TABLE WELL IN COLUMBIARIVER GROUP, DIAM 6 IN (15 CM), REPORTED DEPTH 163 FT (50 M), CASED TO 24 FT (7 M). LSD ABOUT 3,000FT (914 M) NGVD OF 1929. MP NO. 1 HOLE IN CASING SOUTH SIDE, 0.40 FT (0.122 M) ABOVE LSD (SINCE MAR.23, 1967).

RECORDS AVAILABLE 1967 - 1973, 1974 TO CURRENT YEAR, 1976 TO CURRENT YEAR.

HIGHEST WATER LEVEL 4.02 FEET BELOW LAND SURFACE DATUM MAR 16, 1976.

LOWEST WATER LEVEL 10.99 FEET BELOW LAND SURFACE DATUM SEP 20, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 26, 1980	4.29 S	SEP 18, 1980	7.14 S

WELL 09N 04E 22BDD1 SITE NUMBER 440602115580301

DRILLED DOMESTIC WATER-TABLE WELL IN COARSE SAND AND GRAVEL OF QUATERNARY AGE, DIAM 6 IN (15 CM). REPORTED DEPTH 111 FT (34 M), CASING DEPTH NOT AVAILABLE. LSD ABOUT 3,100 FT (945 M) NGVD OF 1929. MP NO. 1 ACCESS HOLE IN TOP OF 6-IN (15-CM) CASING, 0.80 FT (0.244 M) ABOVE LSD (SINCE JULY 12, 1971).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 53.96 FEET BELOW LAND SURFACE DATUM JUL 12, 1971.

LOWEST WATER LEVEL 57.80 FEET BELOW LAND SURFACE DATUM JAN 22, 1968.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15, 1979	56.10 R S	JAN 09, 1980	55.67 S	APR 16, 1980	55.66 S	JUL 23, 1980	54.97 S
NOV 19	56.19 S	FEB 22	56.06 S	JUN 04	55.15 S	SEP 24	55.15 S

WELL 06N 05W 30BAB1 SITE NUMBER 435007116591501

DRILLED IRRIGATION WATER-TABLE WELL IN ALLUVIAL SAND OF QUATERNARY AGE, DIAM 12 IN (30 CM), REPORTED DEPTH 169 FT (51.5 M), CASED TO 135 FT (41.2 M), LSD ABOUT 2,225 FT (678 M) NGVD OF 1929, MP NO. 1 HOLE IN PUMPBASE WEST SIDE, 1.00 FT (0.305 M)ABOVE LSD (SINCE JAN. 9, 1967).

RECORDS AVAILABLE 1967 - 1970, 1971 TO CURRENT YEAR.

HIGHEST WATER LEVEL 25.17 FEET BELOW LAND SURFACE DATUM SEP 10, 1968.

LOWEST WATER LEVEL 35.16 FEET BELOW LAND SURFACE DATUM MAY 27, 1969.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 11, 1980	30.24 V S	AUG 04, 1980	30.20 V S	SEP 23, 1980	26.90 V S

WELL 05N 05W 10CAC1 SITE NUMBER 434603116590901

DRILLED DOMESTIC WATER-TABLE WELL IN UNKNOWN AQUIFER, DIAM 6 IN (15 CM), REPORTED DEPTH 250 FT (76.2 M), CASING DEPTH NOT AVAILABLE, LSD ABOUT 2,225 FT (678 M) NGVD OF 1929, MP NO. 1 HOLE IN TOP OF 6-IN (15-CM) CASING SOUTH SIDE, 1.50 FT (0.457 M) ABOVE LSD (SINCE JAN. 5, 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 7.50 FEET BELOW LAND SURFACE DATUM SEP 07, 1973.

LOWEST WATER LEVEL 13.90 FEET BELOW LAND SURFACE DATUM MAR 20, 1968.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 11, 1980	12.59 R S	AUG 04, 1980	10.62 R S	SEP 16, 1980	9.74 R S

WELL 05N 04W 13BCB1 SITE NUMBER 434627116461801

DRILLED DOMESTIC WATER-TABLE WELL IN UNKNOWN AQUIFER, DIAM 4 IN (10 CM), DEPTH 105 FT (32.0 M), CASING DEPTH NOT AVAILABLE, LSD ABOUT 2,395 FT (730 M) NGVD OF 1929, MP NO. 1 TOP OF 4-IN (10-CM) CASING, 0.50 FT (0.152 M) ABOVE LSD (SINCE JAN. 11, 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 16.08 FEET BELOW LAND SURFACE DATUM SEP 16, 1969.

LOWEST WATER LEVEL 21.40 FEET BELOW LAND SURFACE DATUM MAR 24, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 12, 1980	20.21 S	AUG 06, 1980	20.47 R S	SEP 23, 1980	18.41 S

WELL 05N 03W 11BCA1 SITE NUMBER 434723116400001

FORMERLY SITE ID NO. 434723116401601. DRILLEDIRRIGATION WATER-TABLE WELL IN IDAHO GROUP, DIAM 16 TO 12 IN (41 TO 30 CM), REPORTED DEPTH 365 FT (111.2 M), 16-IN (41-CM) CASING 0-325 FT (0-99.1 M), 12-IN (30-CM) CASING 310-350 FT (94.5-106.7 M), PERFORATED 311-349 FT (94.8-106.4 M). LSD ABOUT 2,625 FT (800 M) NGVD OF 1929. APR.8, 1974, WELL HAD FILLED IN TO A DEPTH OF 346.2 FT (105.5 M), SEPT. 23, 1977, WELL HAD FILLED IN TO A DEPTH OF 303.6 FT (92.5 M). MP NO. 3 TOP OF 16-IN (41-CM) CASING NORTHEAST SIDE, 1.37 FT (0.418 M) ABOVE LSD (SINCE MAR. 13, 1980).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 153.60 FEET BELOW LAND SURFACE DATUM MAR 09, 1977.

LOWEST WATER LEVEL 173.13 FEET BELOW LAND SURFACE DATUM AUG 23, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 18, 1979	158.53 S	MAR 13, 1980	158.13 S	AUG 05, 1980	170.11 S

WELL 05N 02W 22CAD1 SITE NUMBER 434514116334501

FORMERLY SITE ID NO. 434601116342601, WELL NO. 05N 02W 22CAA1. DRILLED IRRIGATION WATER-TABLE WELL IN IDAHO GROUP, DIAM 12 TO 8 IN (30 TO 20 CM), REPORTED DEPTH 450 FT (137.2 M), 12-IN (30-CM) CASING 0-303 FT (0-92.4 M), 8-IN (20-CM) CASING 284-403 FT (86.6-122.8 M), PERFORATED 279-403 FT 0 (85.0-122.8 M). LSD ABOUT 2,610 FT (796 M) NGVD OF 1929. MP NO. 1 TOP OF 1 1/2-IN (3.8-CM) VERTIC 0 ACCESS PIPE ON SOUTH SIDE OF PUMP, 1.50 FT (0.457 M) ABOVE LSD (SINCE FEB. 21, 1967). 0

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 181.10 FEET BELOW LAND SURFACE DATUM MAR 30, 1979.

LOWEST WATER LEVEL 185.87 FEET BELOW LAND SURFACE DATUM FEB 21, 1967.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 19, 1979	181.40 V S	MAR 13, 1980	181.10 V S	JUL 18, 1980	187.82 V S	SEP 19, 1980	182.41 V S
JAN 23, 1980	181.26 V S	MAY 19	182.39 V S	AUG 06	186.97 V S		

WELL 04N 05W 07DCD1 SITE NUMBER 434132116584001

DRILLED IRRIGATION WATER-TABLE WELL IN IDAHO GROUP, DIAM 12 IN (30 CM), REPORTED DEPTH 100 FT (30.5 M), CASED TO 100 FT (30.5 M), PERFORATED 64-100 FT (19.5-30.5 M), GRAVEL PACKED. LSD ABOUT 2,392 FT (729 M) NGVD OF 1929. MP NO. 1 BOTTOM EDGE OF SLOPING PIPE, 1.00 FT (0.305 M) ABOVE LSD (SINCE MAR. 16, 1971).

RECORDS AVAILABLE 1971 TO CURRENT YEAR.

HIGHEST WATER LEVEL 11.22 FEET BELOW LAND SURFACE DATUM SEP 17, 1976.

LOWEST WATER LEVEL 16.48 FEET BELOW LAND SURFACE DATUM MAR 22, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 19, 1979	14.51 S	MAR 14, 1980	16.14 S	JUL 18, 1980	12.04 S	SEP 16, 1980	12.26 S
JAN 23, 1980	15.60 S	MAY 19	13.33 S	AUG 04	54.62 P S		

WELL 04N 04W 05DDB1 SITE NUMBER 434232116501001

DRILLED STOCK ARTESIAN WELL IN UNKNOWN AQUIFER, DIAM 4 IN (10 CM), DEPTH 178 FT (54.2 M), CASING DEPTH NOT AVAILABLE. LSD ABOUT 2,284 FT (696 M) NGVD OF 1929. MP NO. 2 TOP OF 4-IN (10-CM) CASING WEST SIDE, 1.70 FT (0.518 M) ABOVE LSD (SINCEOCT. 17, 1979).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 6.51 FEET ABOVE LAND SURFACE DATUM NOV 15, 1972.

LOWEST WATER LEVEL 3.05 FEET ABOVE LAND SURFACE DATUM JAN 18, 1967.

WATER LEVELS IN FEET ABOVE LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
OCT 17, 1979	5.96	M	APR 16, 1980	4.12	M	SEP 23, 1980	5.28	M

WELL 04N 03W 13BAA1 SITE NUMBER 434128116383601

DRILLED STOCK ARTESIAN WELL IN IDAHO GROUP, DIAM 6 IN (15 CM), REPORTED DEPTH 185 FT (56.4 M), CASED TO 181 FT (55.2 M). LSD ABOUT 2,370 FT (722 M) NGVD OF 1929. MP NO. 1 TOP OF 2-IN (5-CM) ADAPTER, 0.80 FT (0.244 M) ABOVE LSD (SINCE FEB. 21, 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 7.80 FEET ABOVE LAND SURFACE DATUM JUL 14, 1970.

LOWEST WATER LEVEL 4.62 FEET ABOVE LAND SURFACE DATUM JUL 23, 1975.

WATER LEVELS IN FEET ABOVE LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL	
APR 11, 1980	4.92	E M	SEP 24, 1980	5.52	E M

WELL 03N 04W 11ADA1 SITE NUMBER 433646116461801

DRILLED OBSERVATION WATER-TABLE WELL IN ALLUVIUM OF QUATERNARY AGE, DIAM 6 TO 4 IN (15 TO 10 CM), DEPTH 91 FT (27.7 M), 6-IN (15-CM) CASING 0-95 FT (0-29.0 M), 4-IN (10-CM) CASING 94-99.5 FT (28.6-30.3 M), PERFORATED 94-99.5 FT (28.6-30.3 M), OPEN BOTTOM. LSD ABOUT 2,497 FT (761 M) NGVD OF 1929. RECORDER INSTALLED AUG. 20, 1953. RECORDER REMOVED OCT. 20, 1954. RECORDER INSTALLED MAY 12, 1967. RECORDER REMOVED NOV. 24, 1971. MP NO. 1 TOP OF CASING, 0.60 FT (0.183 M) ABOVE LSD (SINCE MAY 12, 1967).

RECORDS AVAILABLE 1953 - 1954, 1955 - 1966, 1967 - 1971, 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 5.89 FEET BELOW LAND SURFACE DATUM AUG 26, 1953.

LOWEST WATER LEVEL 18.38 FEET BELOW LAND SURFACE DATUM MAY 23, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
NOV 19, 1979	12.89	S	MAR 20, 1980	14.73	S	JUL 18, 1980	11.37	S	SEP 16, 1980	10.20	S
JAN 23, 1980	14.15	S	MAY 19	13.30	S	AUG 05	10.69	S			

WELL 03N 03W 03BCB2 SITE NUMBER 433745116412501

DRILLED OBSERVATION WATER-TABLE WELL IN SAND AND GRAVEL OF QUATERNARY AGE, DIAM 6 TO 4 IN (15 TO 10 CM), DEPTH 94 FT (28.6 M), 6-IN (15-CM) CASING 0-84 FT (0-25.6 M), 4-IN (10-CM) SCREEN 84-94.5 FT (25.6-28.8 M). LSD ABOUT 2,429 FT (740 M) NGVD OF 1929. RECORDER INSTALLED OCT. 19, 1953. RECORDER REMOVED AUG. 20, 1954. MP NO. 3 BOTTOM SOUTH EDGE OF BOARD ON SOUTH SIDE OF WELL PIT COVER AT LSD (SINCE JULY 18, 1979).

RECORDS AVAILABLE 1953 - 1954, 1955 TO CURRENT YEAR.

HIGHEST WATER LEVEL 7.13 FEET BELOW LAND SURFACE DATUM SEP 27, 1960.

LOWEST WATER LEVEL 18.14 FEET BELOW LAND SURFACE DATUM MAY 18, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
NOV 19, 1979	15.06	S	MAR 15, 1980	16.03	S	JUL 18, 1980	16.21	S	SEP 16, 1980	14.46	S
JAN 23, 1980	15.17	S	MAY 19	16.34	S	AUG 05	15.83	S			

WELL 02N 03W 22DDC1 SITE NUMBER 432919116403701

DRILLED IRRIGATION WATER-TABLE WELL IN IDAHO GROUP, DIAM 14 IN (36 CM), REPORTED DEPTH 603 FT (183.8 M), CASED TO 580 FT (176.8 M), PERFORATED 400-580 FT (121.9-176.8 M), GRAVEL PACKED 0-580 FT (0-176.8 M). LSD ABOUT 2,750 FT (838 M) NGVD OF 1929. MP NO. 1 TOP OF 3/4-IN (1.9-CM) SLANTED ACCESS PIPE ON SOUTHWEST SIDE OF PUMP, 0.90 FT (0.274 M) ABOVE LSD (SINCE APR. 27, 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 313.00 FEET BELOW LAND SURFACE DATUM APR 27, 1967.

LOWEST WATER LEVEL 431.90 FEET BELOW LAND SURFACE DATUM SEP 19, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
APR 03, 1980	356.48	S	AUG 12, 1980	357.29	V S	SEP 16, 1980	366.04	S

WELL 02N 01W 07BBC1 SITE NUMBER 433145116304301

DRILLED OBSERVATION WATER-TABLE WELL IN SNAKERIVER GROUP, DIAM 6 TO 4 IN (15 TO 10 CM), DEPTH 103.0 FT (31.4 M), 6-IN (15-CM) CASING 0-97 FT (0-29.6 M), 4-IN (10-CM) CASING 96-102 FT (29.3-31.1 M), PERFORATED 96-102 FT (29.3-31.1 M). LSD 2,547.92 FT (776.606 M) NGVD OF 1929. RECORDER INSTALLED AUG. 19, 1953. RECORDER REMOVED NOV. 24, 1971. MP NO. 2 TOP OF NIPPLE IN CASING CAP, 0.66 FT (0.201 M) ABOVE LSD (SINCE JULY 3, 1978).

RECORDS AVAILABLE 1953 - 1971, 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 5.80 FEET BELOW LAND SURFACE DATUM OCT 12, 1960.

LOWEST WATER LEVEL 16.09 FEET BELOW LAND SURFACE DATUM JAN 18, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
NOV 19, 1979	11.00	S	MAR 18, 1980	13.19	S	JUL 18, 1980	10.57	S	SEP 15, 1980	9.05	S
JAN 23, 1980	12.79	S	MAY 19	12.58	S	AUG 09	10.00	S			

WELL 01N 02W 05ADD1 SITE NUMBER 432708116353901

DRILLED IRRIGATION WATER-TABLE WELL IN IDAHO GROUP, DIAM 12 TO 10 IN (30 TO 25 CM), REPORTED DEPTH 720 FT (219.5 M), 12-IN (30-CM) CASING 0-423 FT (0-128.9 M), 10-IN (25-CM) CASING 415-625 FT (126.5-190.5 M), PERFORATED 415-625 FT (126.5-190.5 M). LSD ABOUT 2,675 FT (815 M) NGVD OF 1929. MP NO. 1 BOTTOM EDGE OF ACCESS HOLE IN SOUTH SIDE OF CASING, 0.40 FT (0.122 M) ABOVE LSD (SINCE APR. 18, 1967).

RECORDS AVAILABLE 1967 - 1970, 1971 TO CURRENT YEAR.

HIGHEST WATER LEVEL 128.70 FEET BELOW LAND SURFACE DATUM MAR 20, 1968.

LOWEST WATER LEVEL 201.76 FEET BELOW LAND SURFACE DATUM AUG 28, 1967.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 27, 1980	129.62 V S	AUG 09, 1980	275.58 P S	SEP 16, 1980	160.84 V S

WELL 01S 02W 14CCC2 SITE NUMBER 431948116330001

DRILLED DOMESTIC AND STOCK WATER-TABLE WELL IN IDAHO GROUP, DIAM 6 IN (15 CM), REPORTED DEPTH 235 FT (71.6 M), CASING DEPTH NOT AVAILABLE. LSD ABOUT 2,390 FT (728 M) NGVD OF 1929. MP NO. 1 TOP OF 5/8-IN (0.95-CM) TAP HOLE IN WELL SEAL, 8.00 FT (2.438 M) BELOW LSD (SINCE OCT. 26, 1962).

RECORDS AVAILABLE 1962 TO CURRENT YEAR.

HIGHEST WATER LEVEL 42.42 FEET BELOW LAND SURFACE DATUM SEP 28, 1966.

LOWEST WATER LEVEL 74.87 FEET BELOW LAND SURFACE DATUM MAR 15, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 14, 1979	56.35 S	APR 02, 1980	49.66 S	JUL 18, 1980	48.35 R S	SEP 15, 1980	46.16 S
JAN 23, 1980	48.46 S	MAY 19	49.83 R S	AUG 09	47.67 S		

WELL 15N 20E 01ADC1 SITE NUMBER 443942114021301

DRILLED DOMESTIC WATER-TABLE WELL IN ALLUVIUMOF QUATERNARY AGE, DIAM 6 IN (15 CM), DEPTH 62.8 FT (19.1 M), CASING DEPTH NOT AVAILABLE. LSD ABOUT 4,748 FT (1,447 M) NGVD OF 1929. MP NO. 2 TOP OF 6-IN (15-CM) CASING WEST SIDE, 0.60 FT (0.183M) ABOVE LSD (SINCE APR. 10, 1974).

RECORDS AVAILABLE 1971, 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 31.51 FEET BELOW LAND SURFACE DATUM JUL 11, 1980.

LOWEST WATER LEVEL 49.31 FEET BELOW LAND SURFACE DATUM MAR 12, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
OCT 24, 1979	39.01	S	JAN 21, 1980	44.71	S	MAY 14, 1980	44.29	S	SEP 13, 1980	35.71	S
DEC 12	43.74	S	MAR 29	45.41	S	JUL 11	31.51	S			

WELL 12N 23E 02BBC1 SITE NUMBER 442412113423601

DRILLED IRRIGATION WATER-TABLE WELL IN ALLUVIUM OF QUATERNARY AGE, DIAM 20 IN (51 CM), DEPTH 127.7 FT (38.9 M), CASING DEPTH NOT AVAILABLE, PERFORATED INTERVAL NOT AVAILABLE. LSD ABOUT 5,908 FT (1,801 M) NGVD OF 1929. MP NO. 1 HOLE IN PUMPBASE SOUTHWEST SIDE, 1.20 FT (0.366 M) ABOVE LSD (SINCE APR. 30, 1971).

RECORDS AVAILABLE 1971, 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 16.12 FEET BELOW LAND SURFACE DATUM JUL 11, 1980.

LOWEST WATER LEVEL 31.77 FEET BELOW LAND SURFACE DATUM MAR 01, 1972.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
OCT 24, 1979	25.30	S	JAN 21, 1980	28.66	S	MAY 14, 1980	29.37	S	SEP 13, 1980	23.64	S
DEC 12	28.38	S	MAR 29	29.01	S	JUL 11	16.12	S			

WELL 01S 04E 10DAD1 SITE NUMBER 432055115571801

DRILLED IRRIGATION WATER-TABLE WELL IN IDAHO GROUP, DIAM 10 TO 6 IN (25 TO 15 CM), REPORTED DEPTH 525 FT (160.0 M), CASED TO 496 FT (151.2 M), 10-IN (25-CM) CASING 0-496 FT (0-151.2 M), 6-IN (15-CM) SCREEN 485-525 FT (147.8-160.0 M), OPEN BOTTOM. LSD ABOUT 3,300 FT (1,006 M) NGVD OF 1929. RECORDER INSTALLED MAY 4, 1961. RECORDER REMOVED JULY 20, 1964. MP NO. 2 TOP OF 5/8-IN (1.6-CM) HOLE IN WELL SEAL, 2.46 FT (0.750 M) ABOVE LSD (SINCE MAR. 25, 1980).

RECORDS AVAILABLE 1960, 1961 - 1964, 1965 - 1967, 1968 TO CURRENT YEAR.

HIGHEST WATER LEVEL 341.09 FEET BELOW LAND SURFACE DATUM JAN 21, 1964.

LOWEST WATER LEVEL 344.73 FEET BELOW LAND SURFACE DATUM JUN 29, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
MAR 25, 1980	341.29	S	AUG 08, 1980	341.26	S	SEP 08, 1980	341.41	S

WELL 01S 11E 35CCC1 SITE NUMBER 431707115072801

DUG UNUSED WATER-TABLE WELL IN ALLUVIUM OF QUATERNARY AGE, DIAM 38 IN (96 CM), DEPTH 15.6 FT (4.8 M), CASING DEPTH NOT AVAILABLE. LSD ABOUT 5,092 FT (1,552 M) NGVD OF 1929. MP NO. 1 PAINTED SPOT NORTHWEST CORNER OF CONCRETE WELL OPENING, AT LSD (SINCE SEPT. 17, 1957).

RECORDS AVAILABLE 1957 - 1968, 1969 TO CURRENT YEAR.

HIGHEST WATER LEVEL 1.90 FEET BELOW LAND SURFACE DATUM APR 21, 1971.

LOWEST WATER LEVEL 9.55 FEET BELOW LAND SURFACE DATUM SEP 27, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
OCT 02, 1979	8.55	S	DEC 18, 1979	8.97	S	MAY 17, 1980	4.31	S	SEP 12, 1980	7.55	S
23	8.76	S	JAN 22 1980	8.56	S	JUL 08	7.05	S			
NOV 20	8.91	S	MAR 25	6.91	S	AUG 18	6.98	S			

WELL 02S 05E 26BDB1 SITE NUMBER 431329115495301

DRILLED UNUSED WATER-TABLE WELL IN UNKNOWN AQUIFER, DIAM 8 IN (20 CM), DEPTH 428.5 FT (130.6 M), CASING DEPTH NOT AVAILABLE. LSD ABOUT 3,025 FT (922 M) NGVD OF 1929. MP NO. 1 TOP OF 7/8-IN (2.22-CM) HOLE IN CASING CAP SOUTH SIDE, 0.50 FT (0.152 M) ABOVE LSD (SINCE DEC. 16, 1960).

RECORDS AVAILABLE 1960, 1976, 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 307.02 FEET BELOW LAND SURFACE DATUM AUG 22, 1977.

LOWEST WATER LEVEL 314.25 FEET BELOW LAND SURFACE DATUM JAN 16, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
OCT 17, 1979	307.21	S	JAN 21, 1980	307.43	S	MAY 14, 1980	307.32	S	AUG 08, 1980	307.25	S
NOV 15	307.31	S	MAR 21	307.25	S	JUL 14	307.28	S	SEP 08	307.40	S
DEC 19	307.21	S									

WELL 02S 05E 36BBB1

SITE NUMBER 431242115485501

DRILLED UNUSED WATER-TABLE WELL IN BRUNEAU FORMATION (FORMERLY SNAKE RIVER GROUP), DIAM 6 IN (15 CM), DEPTH 356.9 FT (108.8 M), CASED TO 50 FT (15.2 M). LSD ABOUT 3,190 FT (972 M) NGVD OF 1929. RECORDER INSTALLED JUNE 23, 1967. RECORDER REMOVED NOV. 15, 1971. MP NO. 3 TOP OF CASING NORTHEAST SIDE, 2.00 FT (0.610 M) ABOVE LSD (SINCE JUNE23, 1967).

RECORDS AVAILABLE 1960 - 1966, 1967 - 1971, 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 280.97 FEET BELOW LAND SURFACE DATUM NOV 21, 1977.

LOWEST WATER LEVEL 285.95 FEET BELOW LAND SURFACE DATUM MAY 28, 1965.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
NOV 15, 1979	281.86	S	MAR 21, 1980	281.70	S	JUL 14, 1980	281.86	S	SEP 08, 1980	282.10	S
JAN 21, 1980	281.96	S	MAY 14	281.60	S	AUG 08	281.75	S			

WELL 02S 06E 11DAC1

SITE NUMBER 431527115420901

DRILLED UNUSED WATER-TABLE WELL IN BRUNEAU FORMATION, DIAM 12 IN (30 CM), REPORTED DEPTH 1,620 FT (493.8 M), CASING DEPTH NOT AVAILABLE. LSD ABOUT 3,400 FT (1,036 M) NGVD OF 1929. AUG. 13, 1970, WELL HAD FILLED IN TO A DEPTH OF 1,550 FT (472.4 M). MP NO. 1 TOP OF HOLE IN 12-IN (30-CM) CASING, 1.70 FT (0.518 M) ABOVE LSD (SINCE MAR. 3, 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 104.94 FEET BELOW LAND SURFACE DATUM MAR 21, 1980.

LOWEST WATER LEVEL 116.62 FEET BELOW LAND SURFACE DATUM SEP 12, 1973.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL	
MAR 21, 1980	104.94	S	AUG 08, 1980	105.00	S

WELL 02S 11E 11CDD1

SITE NUMBER 431521115065501

DRILLED UNUSED WATER-TABLE WELL IN QUATERNARYSEDIMENTS, DIAM 16 TO 12 IN (41 TO 30 CM), DEPTH 226.2 FT (68.9 M), 16-IN (41-CM) CASING 0-152 FT (0-43.3 M), 12-IN (30-CM) CASING 152-228 FT (46.3-69.5 M), 16-IN (41-CM) SCREEN 142-152 FT (43.3-46.3 M), 12-IN (30-CM) SCREEN 177.5-182.5 FT (54.1-55.6 M), 203-223 FT (61.9-68.0 M). LSD ABOUT 5,110 FT (1,558 M) NGVD OF 1929. MP NO. 1 TOP OF 16-IN (41-CM) CASING NORTH SIDE, 1.50 FT (0.457 M) ABOVE LSD (SINCE MAR. 16, 1977).

RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 14.63 FEET BELOW LAND SURFACE DATUM MAR 16, 1977.

LOWEST WATER LEVEL 63.44 FEET BELOW LAND SURFACE DATUM AUG 18, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
OCT 02, 1979	34.61	S	DEC 18, 1979	25.96	S	MAY 17, 1980	20.35	S	SEP 12, 1980	44.03	S
23	30.74	S	JAN 22 1980	24.03	S	JUL 08	31.68	S			
NOV 20	27.93	S	MAR 25	20.09	S	AUG 18	63.44	S			

WELL 03S 05E 07BDD1 SITE NUMBER 431044115542901

DRILLED UNUSED WATER-TABLE WELL IN BRUNEAU FORMATION, DIAM 18 TO 12 IN (45 TO 30 CM) REPORTED DEPTH 497 FT (151.5 M), 18 IN (45 CM) CASING 0-110 FT (0-33.5 M), 12 IN (30 CM) CASING 0-334 FT (0-101.8 M), PERFORATED 240-332 FT (73.2-101.2 M). LSD ABOUT 3,074 FT (937 M) NGVD OF 1929. MP NO. 2 TOP OF 1-IN (2.5-CM) HOLE IN CASING CAP NORTHWEST SIDE, 2.10 FT (0.640 M) ABOVE LSD (SINCE DEC. 19, 1979).

RECORDS AVAILABLE 1976, 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 241.35 FEET BELOW LAND SURFACE DATUM MAY 25, 1976.

LOWEST WATER LEVEL 266.12 FEET BELOW LAND SURFACE DATUM SEP 9, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
OCT 17, 1979	261.75	S	JAN 21, 1980	262.93	S	MAY 14, 1980	262.91	S	AUG 08, 1980	265.44	S
NOV 15	262.49	S	MAR 25	262.68	S	JUL 14	264.03	S	SEP 08	266.12	S
DEC 19	262.55	S									

WELL 03S 06E 13BBA1 SITE NUMBER 431011115411001

DRILLED UNUSED WATER-TABLE WELL IN BRUNEAU FORMATION, DIAM 12 IN (30 CM), REPORTED DEPTH 150 FT (45.7 M), CASING DEPTH NOT AVAILABLE. LSD ABOUT 3,240 FT (988 M) NGVD OF 1929. MP NO. 1 TOP OF HOLE IN CASING COVER NORTH SIDE, 1.50 FT (0.457 M)ABOVE LSD (SINCE MAY 7, 1976).

RECORDS AVAILABLE 1976, 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 25.19 FEET BELOW LAND SURFACE DATUM JUN 20, 1978.

LOWEST WATER LEVEL 51.22 FEET BELOW LAND SURFACE DATUM SEP 08, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
OCT 17, 1979	41.62	S	JAN 21, 1980	40.68	S	MAY 14, 1980	39.33	S	AUG 08, 1980	46.79	S
NOV 15	39.27	S	MAR 21	35.47	S	JUL 14	43.31	S	SEP 08	51.22	S
DEC 19	39.77	S									

WELL 03S 06E 35ABB1 SITE NUMBER 430732115422301

DRILLED IRRIGATION WATER-TABLE WELL IN ALLUVIUM OF HOLOCENE AGE, DIAM 12 IN (30 CM), DEPTH 14.5 FT (4.4 M), CASED TO 14.5 FT (4.4 M). LSD ABOUT 3,125 FT (956 M) NGVD OF 1929. MP NO. 2 TOP OF CASING EAST SIDE, 1.70 FT (0.518 M) ABOVE LSD (SINCEDEC. 10, 1968).

RECORDS AVAILABLE 1967 - 1971, 1976, 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 2.68 FEET BELOW LAND SURFACE DATUM JAN 20, 1971.

LOWEST WATER LEVEL 7.69 FEET BELOW LAND SURFACE DATUM AUG 03, 1967.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
OCT 17, 1979	4.45	S	JAN 21, 1980	4.05	S	MAY 14, 1980	4.87	S	AUG 12, 1980	5.35	S
NOV 14	4.10	S	MAR 21	4.43	S	JUL 14	5.33	S	SEP 08	4.86	S
DEC 19	4.05	S									

WELL 03S 06E 35BCC1 SITE NUMBER 430716115425101

DRILLED IRRIGATION WATER-TABLE WELL IN BRUNEAU FORMATION (FORMERLY SNAKE RIVER GROUP), DIAM 12 IN (30 CM), DEPTH 857.0 FT (261.2 M), CASED TO 598 FT (182.3 M), PERFORATED 6-264 FT (1.8-80.5 M). LSD ABOUT 3,145 FT (959 M) NGVD OF 1929. MP NO. 1TOP OF 12-IN (30-CM) CASING NORTHEAST SIDE, 1.80 FT (0.549 M) ABOVE LSD (SINCE AUG. 8, 1967).

RECORDS AVAILABLE 1967, 1968 TO CURRENT YEAR.

HIGHEST WATER LEVEL 385.00 FEET BELOW LAND SURFACE DATUM NOV 03, 1967.

LOWEST WATER LEVEL 418.10 FEET BELOW LAND SURFACE DATUM SEP 08, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
NOV 14, 1979	409.16	T	MAR 21, 1980	410.45	T	JUL 14, 1980	414.20	T	SEP 08, 1980	418.10	T
JAN 21, 1980	407.88	T	MAY 14	392.41	T	AUG 12	415.08	T			

WELL 03S 08E 36CDA1 SITE NUMBER 430656115270701

DRILLED IRRIGATION ARTESIAN WELL IN SAND AND GRAVEL OF QUATERNARY AGE, DIAM 12 IN (30 CM), REPORTED DEPTH 600 FT (182.9 M), CASED TO 470 FT (143.3 M). LSD ABOUT 3,395 FT (1,035 M) NGVD OF 1929. MP NO. 1 CENTER OF USG PRESSURE GUAGE, 4.60 FT (1.402 M) ABOVE LSD (SINCE APR. 24, 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 161.68 FEET ABOVE LAND SURFACE DATUM MAR 22, 1973.

LOWEST WATER LEVEL 46.18 FEET ABOVE LAND SURFACE DATUM JUL 16, 1979.

WATER LEVELS IN FEET ABOVE LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 15, 1979	50.34 E G	JAN 21, 1980	63.50 E G	SEP 08, 1980	50.80 E G

WELL 04S 03E 23CDD1 SITE NUMBER 430321116040101

DRILLED UNUSED WATER-TABLE WELL IN BRUNEAU FORMATION, DIAM 20 IN (51 CM), REPORTED DEPTH 600 FT (182.9 M), CASED TO 65.5 FT (20.0 M). LSD ABOUT 2,917 FT (889 M) NGVD OF 1929. MP NO. 1 TOP OF 1-IN (2.5 CM) COUPLING, 1.65 FT (0.503 M) ABOVE LSD (SINCE APR. 15, 1976).

RECORDS AVAILABLE 1976, 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 242.69 FEET BELOW LAND SURFACE DATUM JAN 22, 1977.

LOWEST WATER LEVEL 247.73 FEET BELOW LAND SURFACE DATUM SEP 19, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
OCT 17, 1979	246.66	S	JAN 21, 1980	247.15	S	MAY 14, 1980	247.10	S	AUG 11, 1980	247.51	S
NOV 14	246.78	S	MAR 26	247.12	S	JUL 16	247.43	S	SEP 19	247.73	S
DEC 19	246.74	S									

WELL 04S 03E 29DDD1 SITE NUMBER 430229116065901

DRILLED UNUSED WATER-TABLE WELL IN UNKNOWN AQUIFER, DIAM 12 IN (30 CM), REPORTED DEPTH 100 FT (30.5 M), CASING DEPTH NOT AVAILABLE. LSD ABOUT 2,485 FT (757 M) NGVD OF 1929. MP NO. 1 TOP OF 12-IN (30-CM) CASING EAST SIDE, AT LSD (SINCE JAN. 30, 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 5.71 FEET BELOW LAND SURFACE DATUM SEP 13, 1973.

LOWEST WATER LEVEL 21.93 FEET BELOW LAND SURFACE DATUM APR 15, 1969.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
MAR 26, 1980	20.74	S	AUG 11, 1980	8.06	S	SEP 11, 1980	6.72	S

WELL 04S 05E 24AAB1 SITE NUMBER 430411115474901

DRILLED UNUSED WATER-TABLE WELL IN BRUNEAU FORMATION, DIAM 8 IN (20 CM), DEPTH 553.3 FT (168.6 M), CASED TO 6 FT (1.8 M). LSD ABOUT 3,092 FT (942 M) NGVD OF 1929. MP NO. 1 TOP OF 8-IN (20-CM) CASING NORTH SIDE, 0.40 FT (0.016 M) ABOVE LSD (SINCE SEPT. 21, 1967).

RECORDS AVAILABLE 1967 - 1971, 1976, 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 410.82 FEET BELOW LAND SURFACE DATUM MAR 16, 1977.

LOWEST WATER LEVEL 417.93 FEET BELOW LAND SURFACE DATUM SEP 11, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
OCT 17, 1979	416.41	S	JAN 21, 1980	416.24	S	MAY 14, 1980	415.62	S	AUG 11, 1980	417.17	S
NOV 14	416.44	S	MAR 26	415.48	S	JUL 16	416.89	S	SEP 11	417.93	S
DEC 19	416.20	S									

WELL 04S 05E 25BBC1 SITE NUMBER 430310115485701

DRILLED IRRIGATION WATER-TABLE WELL IN BRUNEAU FORMATION (FORMERLY SNAKE RIVER GROUP), REPORTED DEPTH 518 FT (157.9 M), CASING INFORMATION NOT AVAILABLE. LSD ABOUT 3,048 FT (929 M) NGVD OF 1929. MP NO. 1 TOP OF HOLE INSIDE PUMPHASE NORTH SIDE, 1.20 FT (0.366 M) ABOVE LSD (SINCE JAN. 27, 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 359.05 FEET BELOW LAND SURFACE DATUM JAN 27, 1967.

LOWEST WATER LEVEL 403.50 FEET BELOW LAND SURFACE DATUM SEP 11, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL	
MAR 26, 1980	383.93	S	SEP 11, 1980	403.50	S

WELL 04S 07E 09DCC1 SITE NUMBER 430505115373401

DRILLED IRRIGATION WATER-TABLE WELL IN BRUNEAU FORMATION (FORMERLY SNAKE RIVER GROUP), DIAM 12 TO 8 IN (30 TO 20 CM), REPORTED DEPTH 862 FT (262.7 M), 12-IN (30-CM) CASING 0-630 FT (0-192.0 M), 8-IN (20-CM) CASING 665-775 FT (202.7-236.2 M). LSD ABOUT 3,152 FT (961 M) NGVD OF 1929. MP NO. 1 TOP OF HOLE INSIDE PUMPBASE NORTHEAST SIDE, 0.60 FT (0.183 M) ABOVE LSD (SINCE JAN. 30, 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 367.40 FEET BELOW LAND SURFACE DATUM MAR 19, 1973.

LOWEST WATER LEVEL 413.70 FEET BELOW LAND SURFACE DATUM SEP 12, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
NOV 15, 1979	374.24	T	MAR 21, 1980	383.07	T	AUG 11, 1980	396.10	T	SEP 12, 1980	413.70	T
JAN 21, 1980	374.45	T	MAY 15	386.79	T						

WELL 04S 10E 30BBA1 SITE NUMBER 430310115190801

DRILLED UNUSED WATER-TABLE WELL IN GLENNS FERRY FORMATION, DIAM 16 IN (41 CM), REPORTED DEPTH 2,265 FT (690.4 M), 20-IN (51-CM) CASING 0-400 FT (0-121.9 M), 16-IN (41-CM) CASING 0-1,497 FT (0-456.3 M). LSD ABOUT 3,455 FT (1,053 M) NGVD OF 1929. SEPT. 2, 1970, WELL HAD FILLED IN TO A DEPTH OF 1,481 FT (451.4 M). MP NO. 1 TOP OF HOLE IN 20-IN (51-CM) CASING COVER, 1.70 FT (0.518 M) ABOVE LSD (SINCE FEB. 3, 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 257.33 FEET BELOW LAND SURFACE DATUM MAR 23, 1968.

LOWEST WATER LEVEL 268.70 FEET BELOW LAND SURFACE DATUM SEP 12, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
NOV 14, 1979	268.11	S	APR 01, 1980	266.94	S	JUL 22, 1980	268.12	S	SEP 12, 1980	268.70	S
JAN 20, 1980	267.72	S	MAY 21	267.15	S	AUG 12	268.38	S			

WELL 05S 04E 05CAA1 SITE NUMBER 430112116001001

DRILLED IRRIGATION WATER-TABLE WELL IN IDAHO GROUP, DIAM 14 IN (36 CM), REPORTED DEPTH 600 FT (182.9 M), CASED TO 440 FT (134.1 M), PERFORATED 225-330 FT (68.6-100.6 M). LSD ABOUT 2,850 FT (869 M) NGVD OF 1929. MP NO. 3 BOTTOM EDGE OF PUMPBASE SOUTH SIDE, 1.10 FT (0.335 M) ABOVE LSD (SINCE MAR. 26, 1980).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 175.60 FEET BELOW LAND SURFACE DATUM JAN 30, 1967.

LOWEST WATER LEVEL 208.64 FEET BELOW LAND SURFACE DATUM AUG 11, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
MAR 26, 1980	199.88	S	AUG 11, 1980	208.64	S	SEP 11, 1980	205.05	S

WELL 05S 06E 15BCD1 SITE NUMBER 425924115435401

DRILLED DOMESTIC WATER-TABLE WELL IN GLENNS FERRY FORMATION, DIAM 26-20-16 IN (66-51-41 CM), REPORTED DEPTH 570 FT (173.7 M), 26-IN (66-CM) CASING 0-195 FT (0-59.4 M), 20-IN (51-CM) CASING 190-296 FT (57.9-90.2 M), 16-IN (41-CM) CASING 330-490 FT (100.6-149.4 M), PERFORATED 330-490 FT (100.6-149.4 M). LSD ABOUT 3,022 FT (921 M) NGVD OF 1929. MP NO. 1 HOLE IN 6-IN (15-CM) CASING NORTH SIDE, 3.70 FT (1.127 M) ABOVE LSD (SINCE MAY 28, 1976).

RECORDS AVAILABLE 1976, 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 376.12 FEET BELOW LAND SURFACE DATUM OCT 17, 1978.

LOWEST WATER LEVEL 383.30 FEET BELOW LAND SURFACE DATUM JAN 22, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 1979	378.89 V	JAN 21, 1980	379.07 T	MAY 15, 1980	379.17 T	AUG 11, 1980	379.09 T
NOV 14	378.92 T	MAR 28	379.25 T	JUL 16	379.00 R T	SEP 11	381.30 P T
DEC 19	378.68 T						

WELL 05S 08E 36CCC1 SITE NUMBER 425621115273501

DRILLED UNUSED WATER-TABLE WELL IN MELON GRAVEL, DIAM 6 IN (15 CM). REPORTED DEPTH 90 FT (27.4 M), CASING DEPTH NOT AVAILABLE. LSD ABOUT 2,536 FT (773 M) NGVD OF 1929. MP NO. 2 LOW POINT OF NOTCH IN TOP OF CSG SOUTHWEST SIDE, 3.89 FT (1.186 M) BELOW LSD (SINCE APR. 11, 1979).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 55.49 FEET BELOW LAND SURFACE DATUM SEP 21, 1974.

LOWEST WATER LEVEL 64.99 FEET BELOW LAND SURFACE DATUM APR 01, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
APR 01, 1980	64.99 S	AUG 08, 1980	63.64 S	SEP 12, 1980	62.47 S

WELL 05S 10E 28CAB1 SITE NUMBER 425734115163401

DRILLED DOMESTIC ARTESIAN WELL IN GLENNS FERRY FORMATION, DIAM 8 IN (20 CM), REPORTED DEPTH 1,100 FT (335.3 M), CASED TO 146 FT (44.5 M). LSD IS 2,543.25 FT (775.183 M) NGVD OF 1929, SUPPLEMENTARY ADJUSTMENT OF 1961. MP NO. 1 TOP OF CASING COVER SOUTH SIDE, 1.21 FT (0.366 M) ABOVE LSD (SINCE JAN. 8, 1976).

RECORDS AVAILABLE 1976 TO CURRENT YEAR.

HIGHEST WATER LEVEL 10.34 FEET ABOVE LAND SURFACE DATUM JAN 08, 1970.

LOWEST WATER LEVEL 1.33 FEET ABOVE LAND SURFACE DATUM JUL 05, 1978.

WATER LEVELS IN FEET ABOVE LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05, 1979	4.26 E M	JAN 20, 1980	6.72 E M	MAY 21, 1980	5.99 E M	AUG 08, 1980	5.01 E S
NOV 14	6.97 E M	APR 01	6.33 E S	JUL 22	4.14 E M	SEP 12	1.41 E M

WELL 06S 10E 30DCB1 SITE NUMBER 425208115184201

DRILLED STOCK WATER-TABLE WELL IN BRUNEAU FORMATION, DIAM 6 IN (15 CM), REPORTED DEPTH 437 FT (133.2 M), CASING DEPTH NOT AVAILABLE. LSD ABOUT 2,990 FT (911 M) NGVD OF 1929. MP NO. 1 TOP OF HOLE IN CASING COVER, 1.10 FT (0.335 M) ABOVE LSD (SINCE FEB. 10, 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 250.76 FEET BELOW LAND SURFACE DATUM MAR 20, 1973.

LOWEST WATER LEVEL 255.18 FEET BELOW LAND SURFACE DATUM SEP 12, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
NOV 14, 1979	252.77	V	MAR 11, 1980	251.60	V	AUG 08, 1980	253.10	V	SEP 12, 1980	255.18	V
JAN 25, 1980	252.74	V	MAY 21	254.64	V						

WELL 06S 11E 06BBA1 SITE NUMBER 425617115120001

DRILLED DOMESTIC WATER-TABLE WELL IN GLENNS FERRY FORMATION, DIAM 6 IN (15 CM), REPORTED DEPTH 445 FT (135.6 M), CASING DEPTH NOT AVAILABLE. LSDABOUT 2,680 FT (817 M) NGVD OF 1929. MP NO. 1 TOP OF HOLE IN WELL SEAL EAST SIDE, 0.60 FT (0.183 M) ABOVE LSD (SINCE FEB. 15, 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 107.21 FEET BELOW LAND SURFACE DATUM FEB 15, 1967.

LOWEST WATER LEVEL 120.53 FEET BELOW LAND SURFACE DATUM SEP 12, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
APR 16, 1980	119.26	S	AUG 08, 1980	120.33	S	SEP 12, 1980	120.53	S

WELL 07N 03W 34ABD1 SITE NUMBER 435424116403701

FORMERLY SITE ID NO. 435426116403701. DRILLEDOBSERVATION WATER-TABLE WELL IN SAND AND GRAVEL OF QUATERNARY AGE, DEPTH 22.8 FT (6.9 M), 1 1/4-IN (3.2-CM) PIEZOMETER TUBE 0-23.1 FT (0-7.0 M), PERFORATED 18.0-21.0 FT (5.5-6.4 M), GRAVEL PACKED, CONCRETE SEAL. LSD 2,267.80 (691.225 M) NGVD OF 1929, SUPPLEMENTARY ADJUSTMENT OF 1961. MEASUREMENTS PRIOR TO DEC. 3, 1971, MADE BY US BUREAU OF RECLAMATION. MP NO. 1 TOP OF 1 1/4-IN (3.2-CM) PIPE NORTHWEST SIDE, 1.06 FT (0.323 M) ABOVE LSD (SINCE JULY 24, 1968).

RECORDS AVAILABLE 1968 - 1971, 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 0.82 FEET BELOW LAND SURFACE DATUM OCT 16, 1979.

LOWEST WATER LEVEL 3.46 FEET BELOW LAND SURFACE DATUM APR 10, 1974.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
OCT 16, 1979	0.82	S	JAN 28, 1980	2.44	S	MAY 20, 1980	1.80	S	AUG 26, 1980	1.65	S
NOV 13	2.49	S	MAR 11	2.70	S	AUG 04	2.30	S	SEP 24	1.64	S
DEC 18	2.68	S									

WELL 07N 03W 34ABD2 SITE NUMBER 435424116403702

FORMERLY SITE ID NO. 435426116403702. DRILLEDOBSERVATION ARTESIAN WELL IN IDAHO GROUP, DEPTH 54.4 FT (16.6 M), 3/4-IN (1.9-CM) PIEZOMETER TUBE 0-56.2 FT (0-17.1 M), PERFORATED 51.2-52.7 FT (15.6-16.1 M), GRAVEL PACKED, CONCRETE SEAL. LSD 2,267.80 FT (691.225 M) NGVD OF 1929, SUPPLEMENTARY ADJUSTMENT OF 1961. MEASUREMENTS PRIOR TO DEC. 3, 1971, MADE BY US BUREAU OF RECLAMATION. MP NO. 1 TOP OF 3/4-IN (1.9-CM) PIPE NORTHWEST SIDE, 1.06 FT (0.323 M) ABOVE LSD (SINCE JULY 24, 1968).

RECORDS AVAILABLE 1968 - 1971, 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 1.06 FEET ABOVE LAND SURFACE DATUM AUG 27, 1970.

LOWEST WATER LEVEL 1.44 FEET BELOW LAND SURFACE DATUM MAR 14, 1977.

WATER LEVELS IN FEET ABOVE OR BELOW(-) LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
OCT 16, 1979	1.03	S	JAN 28, 1980	-0.39	S	MAY 20, 1980	0.38	S	AUG 26, 1980	0.69	S
NOV 13	-0.44	S	MAR 11	-0.64	S	AUG 04	0.36	S	SEP 24	0.68	S
DEC 18	-0.64	S									

WELL 07N 03W 34ABD3 SITE NUMBER 435424116403703

FORMERLY SITE ID NO. 435426116403703. DRILLEDOBSERVATION ARTESIAN WELL IN IDAHO GROUP, DIAM 4 TO 3/4 IN (10 TO 1.9 CM), DEPTH 85.5 FT (26.1 M), 4-IN (10-CM) CASING 5.52 FT (1.68 M) ABOVE LSD TO 1.86 FT (0.57 M) BELOW LSD, 3/4-IN (1.9-CM) PIEZOMETER TUBE 1.86-85.0 FT (0.57-25.9 M), PERFORATED 80.0-81.5 FT (24.4-24.8 M). LSD 2,267.80 FT (691.225 M) NGVD OF 1929, SUPPLEMENTARY ADJUSTMENT OF 1961. MEASUREMENTS PRIOR TO NOV. 10, 1971, MADE BY US BUREAU OF RECLAMATION. RECORDER INSTALLED APR. 17, 1969. RECORDER REMOVED MAY 28, 1971. MP NO. 2 TOP OF 4-IN (10-CM) CASING NORTHWEST SIDE, 5.52 FT (1.682 M) ABOVE LSD (SINCE JULY 24, 1968).

RECORDS AVAILABLE 1968, 1969 - 1971, 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 4.41 FEET ABOVE LAND SURFACE DATUM MAY 20, 1976.

LOWEST WATER LEVEL 1.83 FEET ABOVE LAND SURFACE DATUM APR 12, 1970.

WATER LEVELS IN FEET ABOVE LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
OCT 16, 1979	3.84	S	DEC 18, 1979	2.60	S	MAY 20, 1980	3.53	S	AUG 26, 1980	3.69	S
NOV 13	4.77	S	MAR 11 1980	2.48	S	AUG 04	3.48	S	SEP 24	3.55	S

WELL 07N 02W 29BBA2 SITE NUMBER 435523116362601

FORMERLY SITE ID NO. 435524116362801. DRILLEDOBSERVATION WATER-TABLE WELL IN IDAHO GROUP, DIAM 6 IN (15 CM), DEPTH 291.3 FT (88.8 M), CASED TO 300 FT (91.4 M), OPEN BOTTOM. LSD 2,396.60 FT (730.484 M) NGVD OF 1929, SUPPLEMENTARY ADJUSTMENT OF 1961. MEASUREMENTS PRIOR TO NOV. 10, 1971, MADE BY US BUREAU OF RECLAMATION. RECORDER INSTALLED JUNE 26, 1969, RECORDER REMOVED MAY 28, 1971. MP NO. 1 TOP OF 6-IN (15-CM) CASING SOUTH SIDE, 0.90 FT (0.274 M) ABOVE LSD (SINCE JUNE 26, 1969).

RECORDS AVAILABLE 1969 - 1971, 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 19.73 FEET BELOW LAND SURFACE DATUM OCT 30, 1974.

LOWEST WATER LEVEL 23.85 FEET BELOW LAND SURFACE DATUM JUN 26, 1969.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
NOV 13, 1979	20.37	S	MAR 16, 1980	22.18	S	AUG 24, 1980	21.98	S	SEP 24, 1980	20.60	S
JAN 24, 1980	21.37	S	MAY 20	22.95	S						

WELL 07N 02W 35ABB1 SITE NUMBER 435427116321801

FORMERLY SITE ID NO. 435430116322301. DUG DOMESTIC WATER-TABLE WELL IN SAND AND GRAVEL OF QUATERNARY AGE, DIAM 36 IN (91 CM), DEPTH 99.8 FT (30.4 M), CONCRETE CASING, CASING DEPTH NOT AVAILABLE. WATER LEVEL INFLUENCED BY LOCAL IRRIGATION. LSD ABOUT 2,451 FT (747 M) NGVD OF 1929. MEASUREMENTS PRIOR TO AUG. 1948 MADE BY R. J. HOWARD. MP NO. 4 TOP OF INNER EDGE OF WOODEN CURB NORTH SIDE, 0.50 FT (0.152 M) ABOVE LSD (SINCE MAR. 19, 1953).

RECORDS AVAILABLE 1941 - 1942, 1948 - 1966, 1967 - 1970, 1971 TO CURRENT YEAR.

HIGHEST WATER LEVEL 67.50 FEET BELOW LAND SURFACE DATUM OCT 12, 1961.

LOWEST WATER LEVEL 83.80 FEET BELOW LAND SURFACE DATUM MAY 20, 1964.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
JAN 28, 1980	70.74	S	MAR 16, 1980	73.16	S	SEP 24, 1980	70.31 R	S

WELL 06N 02W 14BCA1 SITE NUMBER 435139116324901

FORMERLY SITE ID NO. 435140116325101. DRILLEDOBSERVATION WATER-TABLE WELL IN SAND AND GRAVEL OF QUATERNARY AGE, DEPTH 21.4 FT (6.5 M), 1 1/4-IN (3.2-CM) PIEZOMETER TUBE 0-25 FT (0-7.6 M), PERFORATED 18.0-21.0 FT (5.5-6.4 M). LSD 2,341.80 FT (713.781 M) NGVD OF 1929, SUPPLEMENTARY ADJUSTMENT OF 1961. MEASUREMENTS PRIOR TO NOV. 10, 1971, MADE BY US BUREAU OF RECLAMATION. MP NO. 2 TOP OF 1 1/4-IN (3.2-CM) PIPE WEST SIDE, 4.34FT (1.323 M) ABOVE LSD (SINCE APR. 25, 1969).

RECORDS AVAILABLE 1968 - 1971, 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 0.25 FEET BELOW LAND SURFACE DATUM DEC 26, 1968.

LOWEST WATER LEVEL 4.58 FEET BELOW LAND SURFACE DATUM MAR 14, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
OCT 16, 1979	3.55	S	JAN 28, 1980	3.18	S	MAY 20, 1980	3.06	S	AUG 26, 1980	3.60	S
NOV 13	3.66	S	MAR 11	3.29	S	AUG 04	3.03	S	SEP 24	3.29	S
DEC 18	3.56	S									

WELL 06N 02W 14BCA2 SITE NUMBER 435139116324902

FORMERLY SITE ID NO. 435140116325102. DRILLEDOBSERVATION ARTESIAN WELL IN IDAHO GROUP, DIAM 4 TO 3/4 IN (10 TO 1.9 CM), DEPTH 84.2 FT (25.7 M), 4-IN (10-CM) CASING 4.23 FT (1.29 M) ABOVE LSD TO 2.05 FT (0.62 M) BELOW LSD, 3/4-IN (1.9 CM) PIEZOMETER TUBE 2.05-84.2 FT (0.62-25.7 M), PERFORATED 79.5-81.0 FT (24.2-24.7 M). LSD 2.341.80 FT (713.781 M) NGVD OF 1929, SUPPLEMENTARY ADJUSTMENT OF 1961. MEASUREMENTS PRIOR TO NOV. 10, 1971, MADE BY US BUREAU OF RECLAMATION. RECORDER INSTALLED APR. 16, 1969. RECORDER REMOVED MAY 28, 1971. MP NO. 2 TOP OF 4-IN (10-CM) CASING WEST SIDE, 4.23 FT (1.289 M) ABOVE LSD (SINCE APR. 16, 1969).

RECORDS AVAILABLE 1968, 1969 - 1971, 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 3.64 FEET ABOVE LAND SURFACE DATUM AUG 23, 1968.

LOWEST WATER LEVEL 0.30 FEET BELOW LAND SURFACE DATUM MAR 14, 1977.

WATER LEVELS IN FEET ABOVE LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
OCT 16, 1979	1.20	S	DEC 18, 1979	0.70	S	MAY 20, 1980	1.21	S	AUG 26, 1980	1.42	S
NOV 13	0.80	S	MAR 11 1980	0.69	S	AUG 04	1.44	S	SEP 24	1.43	S

WELL 06N 01W 18DAA2 SITE NUMBER 435125116293201

FORMERLY SITE ID NO. 435125116293501. DRILLEDDOMESTIC WATER-TABLE WELL IN SAND AND GRAVEL OF QUATERNARY AGE, DIAM 4 IN (10 CM), DEPTH 30.9FT (9.4 M), CASED TO 22 FT (6.7 M). LSD 2.371.90 FT (722.955 M) NGVD OF 1929, SUPPLEMENTARY ADJUSTMENT OF 1961. MEASUREMENTS PRIOR TO NOV. 9, 1971, MADE BY US BUREAU OF RECLAMATION. RECORDER INSTALLED OCT. 17, 1968. RECORDER REMOVED MAY 28, 1971. MP NO. 1 TOP OF 4-IN (10-CM) CASING NORTH SIDE, 0.26FT (0.079 M) ABOVE LSD (SINCE NOV. 9, 1967).

RECORDS AVAILABLE 1967, 1968 - 1970, 1971 TO CURRENT YEAR.

HIGHEST WATER LEVEL 3.04 FEET BELOW LAND SURFACE DATUM AUG 24, 1970.

LOWEST WATER LEVEL 8.57 FEET BELOW LAND SURFACE DATUM MAR 14, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
OCT 16, 1979	5.98	S	JAN 24, 1980	7.28	S	MAY 20, 1980	7.06	S	AUG 26, 1980	4.76	S
NOV 13	7.21	S	MAR 11	7.92	S	AUG 04	4.74	S	SEP 24	5.89	S
DEC 18	7.77	S									

WELL 53N 04W 24BBA1 SITE NUMBER 475558116464701

DUG STOCK AND DOMESTIC WATER-TABLE WELL IN FLUVIOGLACIAL GRAVEL OF QUATERNARY AGE, DIAM 39 IN (99 CM), DEPTH 480.0 FT (146.3 M), CRIBBED WITH WOOD TO 480 FT (146.3 M). LSD 2,486.53 FT (757.894 M) NGVD OF 1929. APR. 26, 1965, WELLWAS DEEPENED AND RECASED TO A DEPTH OF 485.2 FT (147.9 M), 25-IN (64-CM) CASING 9-25 FT (2.7-7.6 M), 25-IN (64-CM) WOOD CRIBBING 25-303 FT (7.6-92.4 M), 20-IN (51-CM) CASING 258-488 FT(78.6-148.7 M), SLOTTED PERFORATIONS 449-488 FT (136.8-148.7 M). MEASUREMENTS PRIOR TO 1938 BY WASHINGTON WATER POWER COMPANY. MEASUREMENTS FROM JAN. 1938 TO JULY 1942 BY US GEOL SURVEY AND WASHINGTON WATER POWER COMPANY. MP NO. 15 TOP OF 1/2-IN (1.3-CM) PIPE TEE SOUTH SIDE OF PUMP, 4.50 FT(1.372 M) ABOVE LSD (SINCE JULY 15, 1968).

RECORDS AVAILABLE 1929 - 1938, 1939 - 1941, 1942 - 1964, 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 447.38 FEET BELOW LAND SURFACE DATUM AUG 13, 1956.

LOWEST WATER LEVEL 478.14 FEET BELOW LAND SURFACE DATUM JAN 15, 1932.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19, 1979	466.94 S	DEC 20, 1979	468.25 S	JUN 19, 1980	469.75 P S	AUG 21, 1980	468.85 P T
NOV 26	467.42 P S	MAY 28 1980	469.84 T	JUL 25	469.31 P T	SEP 24	468.30 P S

WELL 53N 04W 28CAB1 SITE NUMBER 475439116503401

DRILLED OBSERVATION WATER-TABLE WELL IN POORLY SORTED TILL OF QUATERNARY AGE, DIAM 6 IN (15 CM), DEPTH 448.6 FT (136.7 M), CASED TO 440 FT (134.1 M), SCREEN 438-448 FT (133.5-136.6 M). LSD 2,426.27 FT (739.527 M) NGVD OF 1929. MP NO. 1 TOP OF CASING NORTHEAST SIDE, 2.30 FT (0.701 M) ABOVE LSD (SINCE JULY 16, 1971).

RECORDS AVAILABLE 1971 TO CURRENT YEAR.

HIGHEST WATER LEVEL 399.57 FEET BELOW LAND SURFACE DATUM AUG 22, 1974.

LOWEST WATER LEVEL 419.89 FEET BELOW LAND SURFACE DATUM MAR 24, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19, 1979	417.60 S	JAN 21, 1980	419.06 S	JUN 19, 1980	419.42 S	SEP 24, 1980	418.84 S
NOV 26	418.02 S	MAR 24	419.89 S	JUL 25	418.97 S		
DEC 20	418.46 S	MAY 28	419.73 S	AUG 21	418.82 S		

WELL 53N 02W 09AAC1 SITE NUMBER 475736116341701

DRILLED UNUSED WATER-TABLE WELL IN FLUVIOGLACIAL SAND AND GRAVEL OF QUATERNARY AGE, DIAM 16 IN (41 CM), REPORTED DEPTH 351 FT (107.0 M), CASED TO 351 FT (107.0 M), PERFORATED 280-345 FT (85.3-105.2 M). LSD 2,291.46 FT (698.437 M) NGVD OF 1929, PACIFIC NORTHWEST SUPPLEMENTARY ADJUSTMENT OF 1947. NOV. 1966 WELL BECAME BRIDGED, WELL DRILLER DROVE OBSTRUCTION DOWN TO 335 FT (102.1 M). AUG. 1968 DEPTH SOUNDED AT 331 FT (100.9 M). MEASUREMENTS FROM DEC. 13, 1943, THROUGH DEC. 29, 1948, ARE AIRLINE MEASUREMENTS MADE TO THE NEAREST FOOT BY A. E. HOLTEN, FARRAGUT INSTITUTE. RECORDER INSTALLED OCT. 25, 1950. RECORDER REMOVED FEB. 4, 1962. MP NO. 8 TOP OF 2-IN (5.1-CM) PIPE, 0.61 FT (0.186 M) ABOVE LSD (SINCE DEC. 12, 1969).

RECORDS AVAILABLE 1943 - 1948, 1949, 1950 - 1962, 1963 TO CURRENT YEAR.

HIGHEST WATER LEVEL 228.00 FEET BELOW LAND SURFACE DATUM JUN 08, 1948.

LOWEST WATER LEVEL 252.00 FEET BELOW LAND SURFACE DATUM JAN 02, 1944.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19, 1979	236.72 S	JAN 21, 1980	242.56 S	JUN 19, 1980	234.20 S	SEP 24, 1980	234.14 S
NOV 26	241.17 S	MAR 24	242.78 V S	JUL 25	233.28 S		
DEC 20	241.99 S	MAY 28	235.36 S	AUG 21	233.13 S		

WELL 51N 05W 33BBA1 SITE NUMBER 474344116583001

DUG DOMESTIC WATER-TABLE WELL IN FLUVIOGLACIAL GRAVEL OF QUATERNARY AGE, DIAM 5 FT (1.5 M), DEPTH 174.4 FT (53.1 M), CONCRETE CASING TO 174 FT (53.0 M), OPEN BOTTOM. LSD 2,137.60 FT (651.540 M) NGVD OF 1929, PACIFIC NORTHWEST SUPPLEMENTARY ADJUSTMENT OF 1947. MEASUREMENTS PRIOR TO JAN. 1938 BY WASHINGTON WATER POWER COMPANY. MEASUREMENTS FROM 1938 THROUGH JUNE 1950 BY US GEOL. SURVEY AND WASHINGTON WATER POWER COMPANY. MP NO. 4 TOP OF 1 1/2-IN (3.8-CM) PIPE EAST SIDE OF PUMP, 2.13 FT (0.649 M) ABOVE LSD (SINCE AUG. 27, 1959).

RECORDS AVAILABLE 1928 - 1937, 1938 - 1961, 1962 TO CURRENT YEAR.

HIGHEST WATER LEVEL 134.14 FEET BELOW LAND SURFACE DATUM JUN 29, 1950.

LOWEST WATER LEVEL 165.09 FEET BELOW LAND SURFACE DATUM FEB 11, 1932.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
OCT 19, 1979	157.59	S	JAN 21, 1980	158.25	S	JUN 19, 1980	157.04	S	SEP 24, 1980	158.33	S
NOV 26	157.89	S	MAR 24	157.89	S	JUL 25	157.54	S			
DEC 20	158.36	S	MAY 28	157.52	S	AUG 21	158.08	S			

WELL 39N 05W 07DDC1 SITE NUMBER 464349117001301

DRILLED UNUSED ARTESIAN WELL IN COLUMBIA RIVER GROUP, DIAM 8 IN (20 CM), DEPTH 231.0 FT (70.4 M), CASING DEPTH NOT AVAILABLE. LSD 2,560.93 FT (780.572 M) NGVD OF 1929. JUNE 6, 1968, WELL WAS DEEPENED TO A DEPTH OF 240 FT (73.2 M). MEASUREMENTS FROM MAY 29, 1937, THROUGH OCT. 7, 1940, FROM WSP'S 845, 886, AND 910. MEASUREMENTS FROM NOV. 27, 1960, THROUGH JULY 27, 1964, MADE BY US GEOL. SURVEY AND UNIVERSITY OF IDAHO. MEASUREMENTS FROM AUG. 3, 1964, THROUGH MAY 24, 1965, MADE BY UNIVERSITY OF IDAHO. MEASUREMENTS FROM JUNE 1, 1965 THROUGH DEC. 14, 1969, MADE BY IDAHO BUREAU OF MINES & GEOLOGY. MP NO. 1 TOP OF CASING SOUTHEAST SIDE AT LSD (SINCE MAY 2, 1947).

RECORDS AVAILABLE 1937 - 1940, 1947 - 1964, 1965 - 1966, 1967 - 1969, 1970 TO CURRENT YEAR.

HIGHEST WATER LEVEL 50.10 FEET BELOW LAND SURFACE DATUM APR 19, 1938.

LOWEST WATER LEVEL 89.21 FEET BELOW LAND SURFACE DATUM DEC 17, 1958.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
OCT 25, 1979	56.43	S	DEC 01, 1979	55.53	S	JUN 17, 1980	55.47	S	SEP 14, 1980	56.49	S
NOV 21	56.23	S	MAR 09, 1980	54.21	S						

WELL 21N 22E 15BAC1 SITE NUMBER 450915113504501

DRILLED DOMESTIC WATER-TABLE WELL IN ALLUVIUMOF QUATERNARY AGE, DIAM 6 IN (15 CM), REPORTED DEPTH 37 FT (11.3 M), CASED TO 36 FT (11.0 M), PERFORATED 26-34 FT (7.9-10.4 M). LSD ABOUT 4,045 FT (1,233 M) NGVD OF 1929. MP NO. 1 TOP OF 3/4-IN (1.9-CM) HOLE IN WELL SEAL SOUTH SIDE, 0.50 FT (0.152 M) ABOVE LSD (SINCE SEPT. 13, 1973).

RECORDS AVAILABLE 1973, 1974 TO CURRENT YEAR.

HIGHEST WATER LEVEL 2.68 FEET BELOW LAND SURFACE DATUM SEP 15, 1977.

LOWEST WATER LEVEL 18.60 FEET BELOW LAND SURFACE DATUM JAN 29, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
OCT 24, 1979	5.84	S	JAN 23, 1980	18.10	S	MAY 15, 1980	4.36	S	SEP 13, 1980	4.22	S
DEC 12	16.66	S	MAR 29	16.98	S	JUL 13	4.28	S			

WELL 21N 22E 31DAA1 SITE NUMBER 450711113533401

DRILLED DOMESTIC WATER-TABLE WELL IN ALLUVIUMOF QUATERNARY AGE, DIAM 6 IN (15 CM), REPORTED DEPTH 33 FT (10.1 M), CASED TO 33 FT (10.1 M), OPENBOTTOM. LSD ABOUT 4,030 FT (1,228 M) NGVD OF 1929. MP NO. 1 TOP OF 1/4-IN (0.64-CM) BUSHING IN WELL SEAL WEST SIDE, 0.60 FT (0.183 M) ABOVE LSD (SINCE SEPT. 11, 1973).

RECORDS AVAILABLE 1973, 1974 TO CURRENT YEAR.

HIGHEST WATER LEVEL 4.03 FEET BELOW LAND SURFACE DATUM JUN 09, 1978.

LOWEST WATER LEVEL 14.44 FEET BELOW LAND SURFACE DATUM MAR 01, 1975.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
OCT 24, 1979	5.86	S	JAN 23, 1980	7.77 R	S	MAY 14, 1980	5.12	S	SEP 13, 1980	4.97	S
DEC 12	7.31	S	MAR 29	7.86	S	JUL 13	4.24	S			

WELL 19N 24E 08CDD1 SITE NUMBER 445904113382601

DRILLED STOCK WATER-TABLE WELL IN ALLUVIUM OFQUATERNARY AGE, DIAM 8 IN (20 CM), REPORTED DEPTH 59 FT (18.0 M), CASED TO 48 FT (14.6 M), PERFORATED 33-45 FT (10.1-13.7 M). LSD ABOUT 4,780 FT (1,457 M) NGVD OF 1929. MP NO. 1 TOP OF 5/8-IN (1.6-CM) HOLE IN WELL SEAL SOUTHWEST SIDE, 0.80 FT (0.244 M) ABOVE LSD (SINCE DEC. 8, 1973).

RECORDS AVAILABLE 1973, 1974 TO CURRENT YEAR.

HIGHEST WATER LEVEL 10.56 FEET BELOW LAND SURFACE DATUM JUN 04, 1979.

LOWEST WATER LEVEL 20.13 FEET BELOW LAND SURFACE DATUM APR 12, 1974.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATF	WATER LEVEL		DATE	WATER LEVEL	
OCT 24, 1979	17.33	S	JAN 23, 1980	19.53	S	MAY 15, 1980	13.70	S	SEP 13, 1980	13.92	S
DEC 12	19.05	S	MAR 29	19.20	S	JUL 13	13.73	S			

WELL 18N 24E 20DDA1 SITE NUMBER 445212113374501

DRILLED DOMESTIC WATER-TABLE WELL IN ALLUVIUMOF QUATERNARY AGE, DIAM 6 IN (15 CM), DEPTH 39.7 FT (12.10 M), CASED TO 39.7 FT (12.10 M). LSD ABOUT 5,170 FT (1,576 M) NGVD OF 1929. MP NO. 1 TOP OF 3/8-IN (1.0-CM) HOLE IN WELL SEAL NORTHEAST SIDE, 4.15 FT (1.265 M) BELOW LSD (SINCE MAY 10, 1975). MP NO. 2 TOP OF 3/8-IN (1.0-CM) PIPE NORTHEAST SIDE, 2.18 FT (0.664 M) BELOW LSD (SINCE JAN. 11, 1976).

RECORDS AVAILABLE 1975 TO CURRENT YEAR.

HIGHEST WATER LEVEL 4.35 FEET BELOW LAND SURFACE DATUM JUN 25, 1977.

LOWEST WATER LEVEL 29.07 FEET BELOW LAND SURFACE DATUM APR 22, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATF	WATER LEVEL		DATE	WATER LEVEL	
OCT 24, 1979	13.67	S	JAN 23, 1980	26.64	S	MAY 15, 1980	7.03	S	SEP 13, 1980	11.68	S
DEC 12	23.77	S	MAR 29	23.31	S	JUL 13	7.62	S			

WELL 14N 22E 35BBD1 SITE NUMBER 443017113493001

DRILLED IRRIGATION WATER-TABLE WELL IN ALLUVIUM OF QUATERNARY AGE, DIAM 16 IN (41 CM), DEPTH 249.4 FT (76.0 M), CASING DEPTH NOT AVAILABLE. LSD ABOUT 5,291 FT (1,613 M) NGVD OF 1929. MP NO. 1 TOP OF CASING NORTH SIDE, 1.00 FT (0.305 M) ABOVE LSD (SINCE MAY 25, 1971).

RECORDS AVAILABLE 1971 TO CURRENT YEAR.

HIGHEST WATER LEVEL 37.00 FEET BELOW LAND SURFACE DATUM SEP 18, 1976.

LOWEST WATER LEVEL 57.59 FEET BELOW LAND SURFACE DATUM JUN 08, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
OCT 24, 1979	48.37	S	JAN 21, 1980	52.36	S	MAY 14, 1980	55.34	S	SEP 13, 1980	44.73	S
DEC 12	48.50	S	MAR 29	54.53	S	JUL 11	44.52	S			

WELL 35N 05W 16DAC1 SITE NUMBER 462225116575101

DRILLED UNUSED WATER-TABLE WELE IN COLUMBIA RIVER GROUP, DIAM 8 IN (20 CM), REPORTED DEPTH 383 FT (116.7 M), CASED TO 136 FT (41.4 M). LSD ABOVT 1,500 FT (457 M) NGVD OF 1929. MP NO. 2 TOP OF 1 1/2-IN (3.8 CM) PIPE COUPLING, 0.45 FT (0.137 M) ABOVE LSD (SINCE AUG. 16, 1979).

RECORDS AVAILABLE 1970 TO CURRENT YEAR.

HIGHEST WATER LEVEL 13.05 FEET BELOW LAND SURFACE DATUM SEP 13, 1970.

LOWEST WATER LEVEL 41.37 FEET BELOW LAND SURFACE DATUM DEC 14, 1977.

WATEP LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
OCT 25, 1979	25.97	S	FEB 10, 1980	30.19	S	APR 19, 1980	29.77	S	AUG 13, 1980	25.33	S
DEC 01	28.16	S	MAR 09	29.51	S	JUN 18	30.95	S	SEP 23	25.24	S

WELL 03N 04W 30AAB1 SITE NUMBER 433423116511401

DRILLED IRRIGATION WATER-TABLE WELL IN IDAHO GROUP, DIAM 12 IN (30 CM), REPORTED DEPTH 200 FT (61.0 M), CASED TO 135 FT (41.1 M), PERFORATED 63-71 FT (19.2-21.6 M). LSD ABOUT 2,305 FT (703 M) NGVD OF 1929. MP NO. 1 TOP OF HOLE IN PUMPBASE, 1.00 FT (0.305 M) ABOVE LSD (SINCE SEPT. 16, 1977).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 53.04 FEET BELOW LAND SURFACE DATUM JAN 03, 1967.

LOWEST WATER LEVEL 70.90 FEET BELOW LAND SURFACE DATUM JUL 07, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 11, 1980	56.68 S	AUG 04, 1980	61.23 S	SEP 24, 1980	57.87 S

WELL 02N 04W 07DBB1 SITE NUMBER 433124116513501

DRILLED DOMESTIC WATER-TABLE WELL IN UNKNOWN AQUIFER, DIAM 4 IN (10 CM), REPORTED DEPTH 1,100 FT (335.3 M), CASING DEPTH NOT AVAILABLE. LSD ABOUT 2,356 FT (718 M) NGVD OF 1929. MP NO. 1 HOLE IN CASING COVER, 5.90 FT (1.798 M) BELOW LSD (SINCE JAN. 16, 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 49.20 FEET BELOW LAND SURFACE DATUM APR 28, 1967.

LOWEST WATER LEVEL 83.81 FEET BELOW LAND SURFACE DATUM MAR 21, 1975.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 12, 1980	82.00 R S	SEP 24, 1980	81.88 R S

WELL 01N 03W 20CCC1 SITE NUMBER 432411116435001

FORMERLY SITE ID NO. 432439116432301, WELL NO. 01N 03W 20BDA1. DRILLED IRRIGATION WATER-TABLE WELL IN IDAHO GROUP, DIAM 12 IN (30 CM), REPORTED DEPTH 155 FT (47.2 M), CASED TO 90 FT (27.4 M), PERFORATED, INTERVAL NOT AVAILABLE. LSD ABOUT2,405 FT (733 M) NGVD OF 1929. MP NO. 1 TOP OF PUMPBASE NORTHEAST SIDE, 0.50 FT (0.152 M) ABOVE LSD (SINCE JAN. 16, 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 35.74 FEET BELOW LAND SURFACE DATUM JAN 16, 1967.

LOWEST WATER LEVEL 60.95 FEET BELOW LAND SURFACE DATUM SEP 18, 1974.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 12, 1980	37.29 S	AUG 04, 1980	70.94 P S

WELL 01S 03W 01BBC1 SITE NUMBER 432208116385701

FORMERLY WELL NO. 01S 03W 01BCB1. DRILLED IRRIGATION ARTESIAN WELL IN UNKNOWN AQUIFER, DIAM 3 IN (8 CM), REPORTED DEPTH 1,800 FT (548.6 M), CASING DEPTH NOT AVAILABLE. LSD ABOUT 2,290 FT (698 M) NGVD OF 1929. MP NO. 1 TOP OF 2 1/2-IN (6.4-CM) HORIZONTAL PIPE, 2.50 FT (0.762 M) ABOVE LSD (SINCE MAY 5, 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 10.62 FEET ABOVE LAND SURFACE DATUM NOV 25, 1970.

LOWEST WATER LEVEL 6.40 FEET ABOVE LAND SURFACE DATUM JAN 03, 1972.

WATER LEVELS IN FEET ABOVE LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATF	WATER LEVEL	DATE	WATER LEVEL
NOV 14, 1979	7.62 E M	MAR 12, 1980	8.22 E M	AUG 04, 1980	8.93 E M	SEP 24, 1980	9.35 E M
JAN 23, 1980	7.02 E M	MAY 15	8.21 E M				

WELL 03S 01E 35DAC1 SITE NUMBER 430704116174901

DRILLED DOMESTIC WATER-TABLE WELL IN IDAHO GROUP, DIAM 6 IN (15 CM), REPORTED DEPTH 300 FT (91.4 M), CASED TO 60 FT (18.3 M). LSD ABOUT 2,340 FT (713 M) NGVD OF 1929. MP NO. 1 TOP OF HOLE IN SEAL SOUTHEAST SIDE, 4.70 FT (1.433 M) BELOW LSD (SINCE FEB. 2, 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 2.16 FEET ABOVE LAND SURFACE DATUM DEC 08, 1975.

LOWEST WATER LEVEL 14.63 FEET BELOW LAND SURFACE DATUM APR 26, 1967.

WATER LEVELS IN FEET ABOVE LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 14, 1980	0.02 E M	AUG 05, 1980	0.04 R M	SEP 10, 1980	0.15 P M

WELL 04S 01E 30BBH1 SITE NUMBER 430312116233701

DRILLED IRRIGATION WATER-TABLE WELL IN IDAHO GROUP, DIAM 10 IN (25 CM), REPORTED DEPTH 320 FT (97.5 M), CASED TO 32 FT (9.8 M). LSD ABOUT 2,810 FT (856 M) NGVD OF 1929. MP NO. 3 BOTTOM OF HOLE IN CASING, 0.13 FT (0.040 M) ABOVE LSD (SINCEMAR. 21, 1973).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 31.21 FEET BELOW LAND SURFACE DATUM MAR 12, 1970.

LOWEST WATER LEVEL 59.79 FEET BELOW LAND SURFACE DATUM MAY 19, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 14, 1980	35.97 S	AUG 05, 1980	54.37 S	SEP 10, 1980	41.63 S

WELL 05S 01E 20DAD1 SITE NUMBER 425816116211701

FORMERLY SITE ID NO. 425807116211501, WELL NO. 05S 01E 20DDD1, DRILLED IRRIGATION WATER-TABLE WELL IN BANBURY FORMATION, DIAM 10 IN (25 CM), REPORTED DEPTH 666 FT (203.0 M), CASED TO 74 FT (22.6 M). LSD ABOUT 2,799 FT (853 M) NGVD OF 1929. MP NO. 1 HOLE IN EAST SIDE OF CASING, 1.50 FT (0.457 M) ABOVE LSC (SINCE MAY 13, 1971).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 15.70 FEET BELOW LAND SURFACE DATUM MAR 17, 1974.

LOWEST WATER LEVEL 58.20 FEET BELOW LAND SURFACE DATUM SEP 12, 1968.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 13, 1980	31.76 V S	AUG 05, 1980	37.99 V S	SEP 10, 1980	45.82 V S

WELL 05S 02E 05BCD1 SITE NUMBER 430114116150801

DRILLED UNUSED ARTESIAN WELL IN IDAHO GROUP, DIAM 10 IN (25 CM), REPORTED DEPTH 2,009 FT (612.3 M). CASING DEPTH NOT AVAILABLE. LSD ABOUT 2,530 FT (771 M) NGVD OF 1929. MP NO. 1 TOP OF 10-IN (25-CM) FLANGE COVER AT LSD (SINCE MAY 23, 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 51.60 FEET ABOVE LAND SURFACE DATUM MAY 23, 1967.

LOWEST WATER LEVEL 42.50 FEET ABOVE LAND SURFACE DATUM SEP 12. 1968.

WATER LEVELS IN FEET ABOVE LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 14, 1980	46.42 E M	AUG 06, 1980	46.93 E M

WELL 06S 03E 14BCB1 SITE NUMBER 425414116043301

DRILLED UNUSED ARTESIAN WELL IN IDAHO GROUP, DIAM 4 IN (10 CM), REPORTED DEPTH 1,342 FT (409.0 M), CASED TO 373 FT (113.7 M). LSD ABOUT 2,643 FT(806 M) NGVD OF 1929, RECORDER INSTALLED MAY 26, 1967. RECORDER REMOVED NOV. 16, 1971. RECORDER INSTALLED JULY 7, 1977. MP NO. 4 TOP OF 4-IN (10-CM) CASING SOUTH SIDE, 0.10 FT (0.030 M) BELOW LSD (SINCE JULY 14, 1971).

RECORDS AVAILABLE 1953 - 1966, 1967 - 1971, 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 4.90 FEET ABOVE LAND SURFACE DATUM APR 28, 1958.

LOWEST WATER LEVEL 64.97 FEET BELOW LAND SURFACE DATUM OCT 07, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05, 1979	57.51	DEC 05, 1979	48.71	FEB 05, 1980	38.98	JUL 18, 1980	39.37
10	57.03	10	47.80	10	38.36	AUG 06	42.23
15	56.41	15	46.92	15	37.66	10	42.81
20	55.97	20	46.00	20	36.99	16	43.59
25	55.50	25	45.10	25	36.48	20	44.14
31	54.98	31	44.23	29	36.04	25	44.74
NOV 05	54.26	JAN 05, 1980	43.46	MAR 05	35.47	31	45.42
10	53.42	10	42.57	10	34.95	SEP 05	46.07
14	52.71 S	15	41.75	15	34.43	10	46.86
15	52.54	20	41.08	20	33.98	11	47.02
20	51.45	23	40.70 S	21	33.96	14	47.42
25	50.52	25	40.43	MAY 15	34.50 S	25	48.63
30	49.63	31	39.58	20	34.90	30	48.82

WELL 06S 04E 14ABC1 SITE NUMBER 425425115563801

DRILLED IRRIGATION ARTESIAN WELL IN IDAVADA VOLCANICS, DIAM 15 IN (38 CM), REPORTED DEPTH 1,905 FT (580.6 M), CASED TO 1,600 FT (487.7 M). LSD ABOUT 2,665 FT (812 M) NGVD OF 1929. MP NO. 3 TOP OF FLANGE ON 16-IN (41-CM) CASING SOUTH SIDE, 2.25 FT (0.686 M) BELOW LSD (SINCE APR. 11, 1979).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 6.09 FEET BELOW LAND SURFACE DATUM APR 26, 1967.

LOWEST WATER LEVEL 86.35 FEET BELOW LAND SURFACE DATUM SEP 13, 1971.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 19, 1980	27.54 V S	AUG 06, 1980	100.45 P S	SEP 10, 1980	106.00 P S

WELL 06S 05E 24BCA1 SITE NUMBER 425323115484301

DRILLED DOMESTIC ARTESIAN WELL IN BANBURY FORMATION, DIAM 6 TO 4 IN (15 TO 10 CM), REPORTED DEPTH 1,095 FT (333.8 M), 6-IN (15-CM) CASING 0-23 FT (0-7.0 M), 4-IN (10-CM) CASING 23-76 FT (7.0-23.2 M). LSD ABOUT 2,525 FT (770 M) NGVDOF 1929. MP NO. 2 TOP OF CHROME VALVE, 1.00 FT (0.305 M) ABOVE LSD (SINCE OCT. 24, 1958).

RECORDS AVAILABLE 1953 - 1967, 1968 TO CURRENT YEAR.

HIGHEST WATER LEVEL 51.22 FEET ABOVE LAND SURFACE DATUM MAR 18, 1980.

LOWEST WATER LEVEL 26.83 FEET ABOVE LAND SURFACE DATUM AUG 06, 1980.

WATER LEVELS IN FEET ABOVE LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 18, 1980	51.22 M	AUG 06, 1980	26.83 M	SEP 11, 1980	45.30 E M

WELL 06S 05E 33DBH1 SITE NUMBER 425127115515501

DRILLED DOMESTIC WATER-TABLE WELL IN UNKNOWN AQUIFER, DIAM 6 IN (15 CM), REPORTED DEPTH 142 FT (43.3 M), CASING DEPTH NOT AVAILABLE. LSD ABOUT 2,540 FT (774 M) NGVD OF 1929. MP NO. 2 TOP OF 1/4-IN (0.64-CM) HOLE IN CASING COUPLING COVER EAST SIDE, 0.95 FT (0.290 M) ABOVE LSD (SINCE FEB. 8, 1967).

RECORDS AVAILABLE 1953, 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 2.78 FEET BELOW LAND SURFACE DATUM FEB 08, 1967.

LOWEST WATER LEVEL 24.81 FEET BELOW LAND SURFACE DATUM SEP 07, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
AUG 06, 1980	22.76 S	SEP 11, 1980	24.33 S

WELL 07S 06E 09BAD2 SITE NUMBER 425004115445302

DRILLED IRRIGATION AND DOMESTIC WELL IN BANBURY FORMATION, DIAM 8 IN (20 CM), REPORTED DEPTH 960 FT (292.6 M), CASED TO 80 FT (24.4 M). LSD ABOUT2,578 FT (786 M) NGVD OF 1929. MP NO. 1 TOP OF 10-IN (25-CM) ELBOW, 1.50 FT (0.457 M) ABOVE LSD (SINCE JULY 28, 1953).

RECORDS AVAILABLE 1953 - 1967, 1968 TO CURRENT YEAR.

HIGHEST WATER LEVEL 59.30 FEET ABOVE LAND SURFACE DATUM FEB 24, 1954.

LOWEST WATER LEVEL 9.00 FEET ABOVE LAND SURFACE DATUM SEP 08, 1955.

WATER LEVELS IN FEET ABOVE LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
MAR 18, 1980	47.32	M	AUG 06, 1980	11.43	E M	SEP 11, 1980	9.71	E M

WELL 08S 11E 33CBA1 SITE NUMBER 424119115105601

DRILLED STOCK WATER-TABLE WELL IN IDAHO GROUP, DIAM 6 IN (15 CM), REPORTED DEPTH 290 FT (88.4 M), CASED TO 290 FT (88.4 M), PERFORATED 250-285 FT (76.2-86.9 M). LSD ABOUT 3,168 FT (965.6 M) NGVD OF 1929. MP NO. 1 HOLE IN TOP OF CASING COVER, 1.30 FT (0.396 M) ABOVF LSD (SINCE FEB. 9, 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 167.75 FEET BELOW LAND SURFACE DATUM MAR 27, 1979.

LOWEST WATER LEVEL 171.69 FEET BELOW LAND SURFACE DATUM FEB 09, 1967.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
MAR 18, 1980	167.95	S	AUG 04, 1980	167.78	S	SEP 18, 1980	169.33	S

WELL 09S 12E 29ACD1 SITE NUMBER 423655115041001

DRILLED IRRIGATION WATER-TABLE WELL IN IDAVADA VOLCANICS, DIAM 18 IN (46 CM), REPORTED DEPTH 530 FT (161.5 M). CASING DEPTH NOT AVAILABLE. LSD ABOUT 3,640 FT (1,100 M) NGVD OF 1929. MP NO. 2 BOTTOM EDGE OF SLOPING PIPE EAST SIDE OF PUMPBASE FLUSH WITH CONCRETE PLATFORM, 2.00 FT (0.610 M) ABOVE LSD (SINCE MAR. 24, 1968).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 194.60 FEET BELOW LAND SURFACE DATUM MAR 24, 1968.

LOWEST WATER LEVEL 286.35 FEET BELOW LAND SURFACE DATUM SEP 18, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
MAR 18, 1980	232.09	V	AUG 08, 1980	234.12	S	SEP 18, 1980	286.35	T

WELL 08N 05W 03BAD1 SITE NUMBER 440402116552801

DRILLED IRRIGATION WATER-TABLE WELL IN ALLUVIUM OF QUATERNARY AGE, DIAM 12 IN (30 CM), DEPTH 25.5 FT (7.8 M), CASING DEPTH NOT AVAILABLE. LSD ABOUT 2,156 FT (657 M) NGVD OF 1929. MP NO. 1 TOP OF 12-IN (30-CM) CASING NORTH SIDE, 0.20 FT (0.061 M) ABOVE LSD (SINCE MAR. 8, 1967).

RECORDS AVAILABLE 1967 - 1971, 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 3.33 FEET BELOW LAND SURFACE DATUM JUL 23, 1968.

LOWEST WATER LEVEL 9.75 FEET BELOW LAND SURFACE DATUM MAY 21, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
NOV 13, 1979	6.13	S	MAR 11, 1980	8.25	S	JUL 23, 1980	12.18	P S	SEP 16, 1980	5.52	S
JAN 28, 1980	7.95	S	MAY 20	9.70	S	AUG 06	11.02	P S			

WELL 08N 04W 33ACA1 SITE NUMBER 435933116485901

DRILLED UNUSED WATER-TABLE WELL IN ALLUVIUM OF QUATERNARY AGE, DIAM 6 IN (15 CM), DEPTH 28.5 FT (8.7 M), CASING DEPTH NOT AVAILABLE. LSD ABOUT 2,211 FT (674 M) NGVD OF 1929. RECORDER INSTALLED MAY 17, 1967. RECORDER CHANGED TO DIGITAL MAR. 25, 1975. MP NO. 1 TOP OF 6-IN (15-CM) CASING EAST SIDE, 0.50 FT (0.152 M) ABOVE LSD (SINCE MAY 11, 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 3.51 FEET BELOW LAND SURFACE DATUM JUL 18, 1971.

LOWEST WATER LEVEL 10.51 FEET BELOW LAND SURFACE DATUM APR 16, 1968.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05, 1979	4.56		JAN 05, 1980	8.54		APR 05, 1980	8.76	JUL 10, 1980	4.78
10	4.51		10	8.56		10	8.88	15	4.72
15	4.76		15	8.13		15	8.98	20	4.28
20	5.21		20	7.85		20	6.66	25	4.94
25	6.24		24	7.90	S	25	7.64	31	4.72
31	6.96		25	7.93		30	7.43	AUG 05	4.75
NOV 05	7.41		31	8.26		MAY 05	5.57	10	5.26
10	7.72		FEB 05	8.43		10	6.02	15	4.98
13	7.88	S	10	8.56		15	4.23	20	4.11
15	8.01		15	8.63		20	5.57	25	5.12
20	8.21		20	8.56		25	5.19	31	4.18
25	8.31		25	8.40		31	6.30	SEP 05	5.04
30	8.45		29	8.37		JUN 05	6.38	10	5.12
DEC 05	8.49		MAR 05	8.40		10	5.83	15	5.27
10	8.31		10	8.58		15	5.72	20	5.36
15	8.31		15	8.71		20	4.85	25	5.98
20	8.44		20	8.82		25	5.49	30	6.32
25	8.51		25	8.57		30	4.61		
31	8.50		31	8.65		JUL 05	5.66		

WELL 07N 05W 02BCC1 SITE NUMBER 435832116544301

DRILLED IRRIGATION WATER-TABLE WELL IN ALLUVIUM OF QUATERNARY AGE, DIAM 10 IN (25 CM), REPORTED DEPTH 55 FT (16.8 M), CASING DEPTH NOT AVAILABLE. LSD ABOUT 2,276 FT (694 M) NGVD OF 1929. MP NO. 2 TOP OF 10-IN (25-CM) CASING EAST SIDE, 1.85 FT (0.564 M) ABOVE LSD (SINCE MAR. 11, 1980)

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 25.49 FEET BELOW LAND SURFACE DATUM OCT 01, 1974.

LOWEST WATER LEVEL 36.17 FEET BELOW LAND SURFACE DATUM APR 25, 1967.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
NOV 13, 1979	29.75	V S	MAR 11, 1980	35.32	V S	JUL 15, 1980	32.15	V S	SEP 16, 1980	28.71	V S
JAN 24, 1980	33.23	V S	MAY 20	35.65	V S	AUG 05	30.47	V S			

WELL 18N 03E 36BCD1

SITE NUMBER 445120116022301

FORMERLY SITE ID NO. 445126116023601, WELL NO. 18N 03E 36BC 1. DRILLED DOMESTIC WATER-TABLE WELL IN SAND AND GRAVEL OF QUATERNARY AGE, DIAM 5 TO 6 IN (13 TO 15 CM), REPORTED DEPTH 177 FT (53.9 M), 5-IN (13-CM) CASING 0-140 FT (0-42.7 M), 6-IN(15-CM) CASING 140-160 FT (42.7-48.8 M), PERFORATED 140-160 FT (42.7-48.8 M), GRAVEL PACKED. LSD ABOUT 5,120 FT (1,561 M) NGVD OF 1929. MP NO. 3 TOP OF HOLE IN WELL SEAL SOUTHEAST SIDE, 0.60 FT (0.183 M) ABOVE LSD (SINCE MAR. 11, 1975).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 32.25 FEET BELOW LAND SURFACE DATUM SEP 19, 1974.

LOWEST WATER LEVEL 44.95 FEET BELOW LAND SURFACE DATUM AUG 03, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL	
MAR 25, 1980	42.43	S	SEP 20, 1980	41.30	S

WELL 16N 03E 14AAB1

SITE NUMBER 444351116030001

DRILLED DOMESTIC WATER-TABLE WELL IN SAND OF QUATERNARY AGE, DIAM 5 TO 6 IN (13 TO 15 CM), REPORTED DEPTH 110 FT (33.5 M), 5-IN (13 CM) CASING 0-80 FT (0-24.4 M), 6-IN (15 CM) CASING 80-100 FT (24.4-30.5 M), PERFORATED 80-100 FT (24.4-30.5 M), GRAVEL PACKED. LSD ABOUT 4,865 FT (1,483 M) NGVD OF 1929. MP NO. 1 1/4-IN (3.2-CM) HOLE IN TOP OF WELL COVER, 1.20 FT (0.366 M) ABOVE LSD (SINCE MAR. 14, 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 1.24 FEET BELOW LAND SURFACE DATUM MAR 09, 1970.

LOWEST WATER LEVEL 4.05 FEET BELOW LAND SURFACE DATUM AUG 01, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL	
MAR 25, 1980	2.00	S	SEP 20, 1980	2.22	S

WELL 13N 04E 16BAD1

SITE NUMBER 442755115592201

DRILLED DOMESTIC WATER-TABLE WELL IN SAND OF QUATERNARY AGE, DIAM 6 IN (15 CM), REPORTED DEPTH 84 FT (25.6 M), CASED TO 67 FT (20.4 M). LSD ABOUT 4,770 FT (1,454 M) NGVD OF 1929. MP NO. 1 TOP OF 6-IN (15-CM) CASING WEST SIDE, 0.60 FT (0.183 M) ABOVE LSD (SINCE MAR. 14, 1967).

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 20.85 FEET BELOW LAND SURFACE DATUM JUL 08, 1974.

LOWEST WATER LEVEL 29.92 FEET BELOW LAND SURFACE DATUM AUG 13, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL	
MAR 24, 1980	25.04	S	SEP 20, 1980	27.07	S

WELL 14N 02W 06DCD1 SITE NUMBER 443407116340901

DRILLED DOMESTIC ARTESIAN WELL IN COLUMBIA RIVER GROUP, DIAM 6 IN (15 CM), DEPTH 405.5 FT (123.6 M), CASED TO 345 FT (105.2 M). LSD ABOUT 2,765 FT(843 M) NGVD OF 1929. MP NO. 1 TOP OF CASING EAST SIDE, 0.75 FT (0.229 M) ABOVE LSD (SINCE MAY 16, 1974).

RECORDS AVAILABLE 1974 - 1975, 1976 TO CURRENT YEAR.

HIGHEST WATER LEVEL 1.32 FEET ABOVE LAND SURFACE DATUM APR 09, 1975.

LOWEST WATER LEVEL 6.76 FEET BELOW LAND SURFACE DATUM JUL 18, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
NOV 07, 1979	2.88	S	JAN 22, 1980	3.18	S	MAY 21, 1980	1.35	S	JUL 17, 1980		N
DEC 11	4.09	S	MAR 26	3.07	S	JUL 16	1.47	S			

WELL 14N 02W 10BCA1 SITE NUMBER 444401116463001

DRILLED UNUSED ARTESIAN WELL IN UNKNOWN AQUIFER, DIAM 6 IN (15 CM), DEPTH 128.9 FT (39.2 M), CASING DEPTH NOT AVAILABLE. LSD ABOUT 2,705 FT (824 M) NGVD OF 1929. MP NO. 1 HOLE IN PUMP COLUMN EAST SIDE, 0.90 FT (0.274 M) ABOVE LSD(SINCE MAY 16, 1974).

RECORDS AVAILABLE 1974 - 1975, 1976 TO CURRENT YEAR.

HIGHEST WATER LEVEL 3.42 FEET BELOW LAND SURFACE DATUM JAN 12, 1977.

LOWEST WATER LEVEL 5.89 FEET BELOW LAND SURFACE DATUM JUL 16, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
NOV 07, 1979	4.93	S	JAN 22, 1980	4.65	S	MAY 21, 1980	5.29	S	SEP 18, 1980	4.90	S
DEC 11	4.67	S	MAR 26	4.63	S	JUL 16	5.89	S			

WELL 13N 04W 12CDC1 SITE NUMBER 442815116455901

DRILLED IRRIGATION WATER-TABLE WELL IN IDAHO GROUP, DIAM 6 IN (15 CM), DEPTH 169.6 FT (51.7 M), CASING DEPTH NOT AVAILABLE. LSD ABOUT 2,625 FT (800 M) NGVD OF 1929. MP NO. 2 TOP OF HOLE IN WELL SEAL NORTH SIDE, 0.60 FT (0.183 M) ABOVE LSD (SINCE MAR. 23, 1967).

RECORDS AVAILABLE 1961 - 1973, 1974 - 1975, 1976 TO CURRENT YEAR.

HIGHEST WATER LEVEL 15.14 FEET BELOW LAND SURFACE DATUM NOV 27, 1961.

LOWEST WATER LEVEL 94.32 FEET BELOW LAND SURFACE DATUM SEP 19, 1972.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL		DATE	WATER LEVEL	
NOV 07, 1979	68.48	S	JAN 21, 1980	57.02	S	MAY 21, 1980	50.62	S	SEP 17, 1980	45.40	S
DEC 11	61.38	S	MAR 27	53.52	S	JUL 16	47.40	S			

WELL 13N 01W 32ACD1 SITE NUMBER 442509116284501

DRILLED DOMESTIC WATER-TABLE WELL IN UNKNOWN AQUIFER, DIAM 6 IN (15 CM), DEPTH 142.3 FT (43.4 M), CASING DEPTH NOT AVAILABLE. LSD ABOUT 3,270 FT (997 M) NGVD OF 1929. MP NO. 1 TOP OF CASING SOUTH SIDE, 1.50 FT (0.457 M) ABOVE LSD (SINCE MAY 30, 1974).

RECORDS AVAILABLE 1974 - 1975, 1976 TO CURRENT YEAR.

HIGHEST WATER LEVEL 53.74 FEET BELOW LAND SURFACE DATUM MAY 30, 1974.

LOWEST WATER LEVEL 81.51 FEET BELOW LAND SURFACE DATUM SEP 17, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 07, 1979	O	JAN 21, 1980	78.62 S	MAY 21, 1980	71.92 S	SEP 17, 1980	81.51 S
DEC 11	80.70 S	MAR 27	74.89 S	JUL 16	77.50 S		

WELL 12N 04W 31DBB1 SITE NUMBER 441957116514201

DRILLED DOMESTIC WATER-TABLE WELL IN IDAHO GROUP, DIAM 6 IN (15 CM), REPORTED DEPTH 95 FT (29.0 M), CASING DEPTH NOT AVAILABLE. LSD ABOUT 2,510 FT (765 M) NGVD OF 1929. MP NO. 1 INNER EDGE OF CONCRETE PIT LINING EAST SIDE, 1.20 FT (0.366M) ABOVE LSD (SINCE MAR. 23, 1967).

RECORDS AVAILABLE 1967 - 1972, 1967 - 1973.

HIGHEST WATER LEVEL 24.12 FEET BELOW LAND SURFACE DATUM SEP 09, 1968.

LOWEST WATER LEVEL 39.88 FEET BELOW LAND SURFACE DATUM MAR 10, 1970.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 27, 1980	38.78 S	JUL 17, 1980	30.12 S	SEP 17, 1980	28.97 S

WELL 11N 06W 25CAC1 SITE NUMBER 441527117002501

DRILLED DOMESTIC WATER-TABLE WELL IN ALLUVIUMOF HOLOCENE AGE, DIAM 10 IN (25 CM), REPORTED DEPTH 39 FT (11.9 M), CASING DEPTH NOT AVAILABLE. LSD ABOUT 2,127 FT (648 M) NGVD OF 1929. MP NO. 1 TOP OF WELL PIT ON SOUTH SIDE, 1.20 FT (0.365M) ABOVE LSD (SINCE MAY 13, 1974).

RECORDS AVAILABLE 1974 - 1975, 1976 TO CURRENT YEAR.

HIGHEST WATER LEVEL 6.58 FEET BELOW LAND SURFACE DATUM SEP 12, 1978.

LOWEST WATER LEVEL 13.45 FEET BELOW LAND SURFACE DATUM MAR 12, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 08, 1979	11.05 S	JAN 21, 1980	11.99 S	MAY 22, 1980	10.86 P S	AUG 05, 1980	6.65 R S
DEC 10	11.86 R S	MAR 27	11.73 S	JUL 16	7.39 P S		

FOOTNOTE EXPLANATION
SITE STATUS: D DRY, E FLOWED RECENTLY, F FLOWING,
G NEARBY FLOWING, N MEASUREMENT DISCONTINUED,
O OBSTRUCTION, P PUMPING, R RECENTLY PUMPED,
S NEARBY PUMPING, V FOREIGN SUBSTANCE, W WELL DESTROYED.

METHOD OF MEASUREMENT: G PRESSURE GAGE, M MANOMETER,
S STEEL TAPE, T ELECTRIC TAPE, V CALIBRATED ELECTRIC TAPE.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

STATION NUMBER	LAT- I- TUDE	LONG- I- TUDE	SEQ. NO.	LOCAL IDENT- I- FIER	DATE OF SAMPLE	TIME	HYDRO- LOGIC UNIT CODE	GEO- LOGIC UNIT	DEPTH OF WELL, TOTAL (FEET)
				ADAMS					
445800116122401	44 58 00	116 12 24	00	19N 02E 22CCA1S	80-06-03	1000	17060210	211IDAH	--
450219116172901	45 02 19	116 17 29	00	20N 01E 26DDB1	80-06-03	1115	17060210	111ALVM	--
450908116174601	45 09 08	116 17 46	01	21N 01E 23ABA1S	80-06-03	1215	--	--	--
451203116184201	45 12 03	116 18 42	01	22N 01E 34DAD1S	80-06-03	1630	--	--	--
				CUSTER					
444756114481701	44 47 56	114 48 17	01	LOON CR HOT SPRINGS	80-06-28	2100	--	--	--
445828114295601	44 58 28	114 29 56	01	08N 17E 31DCB1S	80-08-07	1630	--	--	--
435855114305101	43 58 55	114 30 51	00	08N 17E 32BCA1S	80-08-07	1730	17060201	110ALVM	--
440556114264501	44 05 56	114 26 45	01	09N 17E 22BCA1S	80-08-07	1900	--	--	--
441513114373301	44 15 13	114 37 33	01	11N 16E 30DAA1S	80-08-08	1000	--	--	--
442352115085601	44 23 52	115 08 56	01	12N 11E 02CDB1S	80-08-04	1500	--	--	--
444354115010801	44 43 54	115 01 08	01	16N 12E 08DDC1S	80-06-27	1435	--	--	--
444336115005201	44 43 36	115 00 52	01	16N 12E 17DAD1S	80-06-27	1600	--	--	--
444700114512201	44 47 00	114 51 22	01	17N 13E 27ADB1S	80-06-28	1500	--	--	--
				ELMORE					
431241115573901	43 12 41	115 57 39	01	02S 04E 34AAC1	80-08-25	1030	--	--	--
431204115533201	43 12 04	115 53 32	01	02S 04E 36DCC1	80-08-25	1200	17050101	112BRUN	--
431457115503301	43 14 57	115 50 33	01	02S 05E 15ABA1	80-09-23	1545	--	--	--
431014115442901	43 10 14	115 44 29	01	03S 06E 09DDC1	80-09-12	1615	17050101	112BRUN	--
431037115385601	43 10 37	115 38 56	01	03S 07E 08CAA1	80-09-17	1430	--	--	--
430656115270601	43 06 56	115 27 06	00	03S 08E 36CDA1	80-09-10	1130	17050101	112GLFR	--
430242116092001	43 02 42	116 09 20	01	04S 02E 25DAD1	80-09-24	1400	--	--	--
430229116070601	43 02 29	116 07 06	01	04S 03E 29DDC1	80-09-23	1345	--	--	--
430213116042501	43 02 13	116 04 25	01	04S 03E 35BCA1	80-08-19	1645	--	--	--
430204116000501	43 02 04	116 00 05	01	04S 04E 32ACD1	80-09-24	1515	--	--	--
430312115375801	43 03 12	115 37 58	01	04S 07E 28BBA1	80-09-12	1445	--	--	--
430616115264501	43 06 16	115 26 45	01	04S 08E 01DBA1	80-09-10	1230	--	--	--
430217115272501	43 02 17	115 27 25	01	04S 08E 36BBA1	80-09-11	1110	17050101	112GLFR	--
430605115215901	43 06 05	115 21 59	01	04S 09E 03DCA1	80-09-10	1415	--	--	--
430042116043701	43 00 42	116 04 37	01	05S 03E 10AAA1	80-08-20	1005	--	--	--
430115115403701	43 01 15	115 40 37	01	05S 06E 01AAA1	80-09-24	1130	--	--	--
425804115333001	42 58 04	115 33 30	01	05S 07E 24DDD1	80-09-12	1350	--	--	--
425835115290901	42 58 35	115 29 09	01	05S 08E 22ACD1	80-09-16	1435	--	--	--
425752115272901	42 57 52	115 27 29	01	05S 08E 25BBD1	80-09-12	1030	--	--	--
425713115294801	42 57 13	115 29 48	01	05S 08E 27CCD1	80-09-17	1230	--	--	--
425648115293601	42 56 48	115 29 36	01	05S 08E 34BDC2	80-09-12	1200	--	--	--
425648115270801	42 56 48	115 27 08	01	05S 08E 36BDD1	80-09-17	1115	--	--	--
425926115194201	42 59 26	115 19 42	01	05S 09E 13ACD1	80-09-11	1230	--	--	--
425930115193801	42 59 30	115 19 38	01	05S 09E 13ADB1	80-09-11	1245	--	--	--
475231115221201	47 52 31	115 22 12	01	05S 09E 27DBB1	80-09-15	1600	--	--	--
425646115254301	42 56 46	115 25 43	01	05S 09E 31ACC1	80-09-16	1300	--	--	--
425805115181301	42 58 05	115 18 13	01	05S 10E 19DDD1	80-09-16	1100	--	--	--

WATER QUALITY DATA, WATEP YEAR OCTOBER 1979 TO SEPTEMBER 1980

STATION NUMBER	DATE OF SAMPLE	ELEV. OF LAND SURFACE DATUM (FT. NGVD)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT
					ADAMS						
445800116122401	80-06-03	--	677	9.3	43.0	13	0	4.9	.1	130	94
450219116172901	80-06-03	--	954	9.4	64.0	28	0	11	.2	180	92
450908116174601	80-06-03	--	670	8.8	30.0	34	0	11	1.6	130	88
451203116184201	80-06-03	--	248	9.9	27.0	4	0	1.6	<.1	48	96
					CUSTER						
444756114481701	80-06-28	--	430	9.0	49.5	4	0	1.8	<.1	94	97
445828114295601	80-08-07	--	562	8.5	52.5	85	0	24	6.2	80	64
435855114305101	80-08-07	--	643	8.5	52.5	71	0	20	5.1	110	72
440556114264501	80-08-07	--	132	7.5	9.0	52	0	17	2.2	5.0	17
441513114373301	80-08-08	--	236	7.4	8.5	110	14	33	6.1	4.6	8
442352115085601	80-08-04	--	387	9.6	37.0	4	0	1.4	.1	82	98
444354115010801	80-06-27	--	475	9.2	47.0	11	0	4.4	.1	97	94
444336115005201	80-06-27	--	410	9.3	62.0	5	0	2.0	.1	86	96
444700114512201	80-06-28	--	432	8.9	39.0	4	0	1.8	<.1	100	97
					ELMORE						
431241115573901	80-08-25	--	137	8.3	20.0	38	0	9.2	3.7	13	40
431204115533201	80-08-25	--	145	8.0	16.0	44	0	9.9	4.7	11	33
431457115503301	80-09-23	--	284	8.0	20.0	65	0	15	6.8	29	46
431014115442901	80-09-12	--	362	6.7	15.0	110	0	29	9.6	30	35
431037115385601	80-09-17	--	137	8.2	18.5	47	0	11	4.8	7.9	25
430656115270601	80-09-10	--	382	--	58.5	3	0	.9	.2	87	98
430242116092001	80-09-24	--	788	7.2	18.0	310	0	68	35	34	18
430229116070601	80-09-23	--	962	7.6	22.0	150	0	40	13	150	67
430213116042501	80-08-19	--	601	7.5	18.0	220	47	64	14	35	25
430204116000501	80-09-24	--	166	8.0	19.5	46	0	12	4.0	12	34
430312115375801	80-09-12	--	314	7.6	24.0	77	0	17	8.5	32	45
430616115264501	80-09-10	--	389	9.4	52.0	3	0	.8	.2	89	98
430217115272501	80-09-11	--	761	8.4	26.5	10	0	3.7	.2	180	96
430605115215901	80-09-10	--	204	8.0	17.5	69	0	21	4.1	14	29
430042116043701	80-08-20	--	399	7.7	17.0	150	12	50	6.7	19	20
430115115403701	80-09-24	--	287	8.1	21.0	75	0	17	8.0	24	38
425804115333001	80-09-12	--	420	7.9	22.5	92	0	27	5.9	42	45
425835115290901	80-09-16	--	501	10.2	29.5	--	--	2.4	<.0	95	4
425752115272901	80-09-12	--	369	7.4	20.5	120	0	41	5.1	19	23
425713115294801	80-09-17	--	795	7.6	22.0	120	0	29	11	110	62
425648115293601	80-09-12	--	634	7.7	17.0	150	0	37	15	75	49
425648115270801	80-09-17	--	790	7.4	16.0	310	95	76	28	33	18
425926115194201	80-09-11	--	3167	7.9	17.5	520	81	100	66	550	68
425930115193801	80-09-11	--	1348	7.5	17.0	500	200	120	49	98	29
475231115221201	80-09-15	--	749	7.8	18.0	300	22	55	40	35	19
425646115254301	80-09-16	--	585	7.7	16.0	170	0	49	12	48	36
425805115181301	80-09-16	--	627	8.5	21.5	13	0	5.0	.2	140	95

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

STATION NUMBER	DATE OF SAMPLE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
					ADAMS						
445800116122401	80-06-03	16	3.3	43	19	67	.1	180	25	1.5	73
450219116172901	80-06-03	15	3.6	2	23	40	.0	320	30	.8	61
450908116174601	80-06-03	9.7	4.1	85	10	86	.3	190	22	.8	52
451203116184201	80-06-03	10	.4	7	38	69	.0	39	4.4	.5	30
					CUSTER						
444756114481701	80-06-28	19	1.7	93	19	108	.2	50	11	16	69
445828114295601	80-08-07	3.8	10	180	7	159	1.0	120	13	9.3	47
435855114305101	80-08-07	5.7	16	230	17	217	1.3	83	39	10	41
440556114264501	80-08-07	.3	.4	71	0	58	3.6	4.3	1.4	.6	16
441513114373301	80-08-08	.2	2.4	120	0	98	7.3	25	1.2	.5	21
442352115085601	80-08-04	18	.3	22	41	86	.0	39	8.7	22	61
444354115010801	80-06-27	13	2.1	20	22	53	.1	110	13	19	60
444336115005201	80-06-27	16	2.5	27	36	82	.1	63	9.0	17	85
444700114512201	80-06-28	20	1.7	120	16	125	.3	47	12	13	79
					ELMORE						
431241115573901	80-08-25	.9	3.4	--	--	52	--	9.6	3.0	.3	45
431204115533201	80-08-25	.7	3.1	--	--	58	--	6.4	3.4	.3	40
431457115503301	80-09-23	1.6	6.0	--	--	99	--	20	11	.6	45
431014115442901	80-09-12	1.2	5.3	--	--	120	--	29	12	.2	32
431037115385601	80-09-17	.5	2.8	--	--	49	--	4.2	2.7	.3	42
430656115270601	80-09-10	22	.7	--	--	140	--	13	3.9	1.8	86
430242116092001	80-09-24	.8	12	--	--	320	--	61	28	.9	67
430229116070601	80-09-23	5.3	8.1	--	--	380	--	81	27	.9	52
430213116042501	80-08-19	1.0	9.7	--	--	170	--	85	22	.3	45
430204116000501	80-09-24	.8	3.3	--	--	61	--	12	4.1	.3	40
430312115375801	80-09-12	1.6	5.5	--	--	98	--	27	13	1.8	60
430616115264501	80-09-10	23	1.0	--	--	130	--	13	3.4	1.8	88
430217115272501	80-09-11	25	4.8	--	--	400	--	1.8	9.6	1.0	89
430605115215901	80-09-10	.7	3.9	--	--	89	--	3.9	2.2	1.1	63
430042116043701	80-08-20	.7	8.9	--	--	140	--	41	10	.3	59
430115115403701	80-09-24	1.2	6.6	--	--	110	--	19	7.7	.9	38
425804115333001	80-09-12	1.9	15	--	--	170	--	27	7.8	1.0	76
425835115290901	80-09-16	--	2.4	--	--	110	--	5.7	88	2.1	59
425752115272901	80-09-12	.7	13	--	--	140	--	28	9.5	.6	74
425713115294801	80-09-17	4.4	24	--	--	290	--	78	30	.8	66
425648115293601	80-09-12	2.6	11	--	--	220	--	67	21	2.6	56
425648115270801	80-09-17	.8	10	--	--	210	--	72	72	.8	68
425926115194201	80-09-11	10	28	--	--	440	--	1100	140	2.9	50
425930115193801	80-09-11	1.9	21	--	--	300	--	360	54	.5	58
475231115221201	80-09-15	.9	16	--	--	280	--	69	30	1.1	78
425646115254301	80-09-16	1.6	10	--	--	250	--	30	12	1.0	67
425805115181301	80-09-16	17	2.5	--	--	240	--	49	13	1.9	46

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

STATION NUMBER	DATE OF SAMPLE	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)
		ADAMS				
445800116122401	80-06-03	459	.64	<.01	<.010	--
450219116172901	80-06-03	631	.86	.03	<.010	--
450908116174601	80-06-03	464	.64	<.01	<.010	--
451203116184201	80-06-03	174	.12	.06	.010	--
		CUSTER				
444756114481701	80-06-28	308	--	1.0	<.010	--
445828114295601	80-08-07	406	.52	<.01	.010	--
435855114305101	80-08-07	456	.58	.23	.010	--
440556114264501	80-08-07	82	.11	.04	.020	--
441513114373301	80-08-08	151	.21	.14	.030	--
442352115085601	80-08-04	266	.36	<.01	.010	--
444354115010801	80-06-27	337	.47	1.1	<.010	--
444336115005201	80-06-27	314	.43	1.1	<.010	--
444700114512201	80-06-28	330	--	<.01	<.010	--
		ELMORE				
431241115573901	80-08-25	121	.16	.59	.010	<10
431204115533201	80-08-25	118	.16	.98	.030	<10
431457115503301	80-09-23	200	.27	1.6	.030	<10
431014115442901	80-09-12	237	.32	3.9	.030	140
431037115385601	80-09-17	109	.15	.75	.030	30
430656115270601	80-09-10	278	.38	.00	.030	20
430242116092001	80-09-24	504	.69	1.1	.030	<10
430229116070601	80-09-23	612	.83	2.6	.090	--
430213116042501	80-08-19	381	.52	.92	.030	--
430204116000501	80-09-24	129	.18	1.0	.030	<10
430312115375801	80-09-12	231	.31	1.7	.010	<10
430616115264501	80-09-10	276	.38	.00	.010	<10
430217115272501	80-09-11	532	.72	.01	.050	30
430605115215901	80-09-10	170	.23	.76	.010	10
430042116043701	80-08-20	279	.38	.00	.020	--
430115115403701	80-09-24	191	.26	.85	.020	--
425804115333001	80-09-12	306	.42	.36	.030	30
425835115290901	80-09-16	162	.22	.00	.000	--
425752115272901	80-09-12	278	.38	.61	.010	680
425713115294801	80-09-17	524	.71	.09	.070	--
425648115293601	80-09-12	419	.57	.38	.100	150
425648115270801	80-09-17	506	.69	4.6	.030	--
425926115194201	80-09-11	2310	3.14	.72	.070	80
425930115193801	80-09-11	945	1.29	.84	.100	20
475231115221201	80-09-15	490	.67	1.3	.050	--
425646115254301	80-09-16	379	.52	.03	.040	--
425805115181301	80-09-16	400	.54	.03	.090	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

STATION NUMBER	LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	LOCAL IDENT-I-FIER	DATE OF SAMPLE	TIME	HYDRO-LOGIC UNIT CODE	GEO-LOGIC UNIT	DEPTH OF WELL, TOTAL (FEET)
				ELMORE					
425717115172501	42 57 17	115 17 25	01	05S 10E 29DCB1	80-09-11	1515	--	--	--
475224115190101	47 52 24	115 19 01	01	05S 10E 30CAC1	80-09-15	1330	--	--	--
425709115175101	42 57 09	115 17 51	01	05S 10E 32BBA1	80-09-15	1200	--	--	--
				IDAHO					
453030115021801	45 30 30	115 02 18	01	UNNAMED HOT SPRING	80-08-19	1245	--	--	--
451339116110401	45 13 39	116 11 04	01	22N 02E 23CCB1S	80-08-28	1130	--	--	--
451227116160501	45 12 27	116 16 05	01	22N 02E 31BBC1S	80-06-03	1430	--	--	--
451636115545301	45 16 36	115 54 53	00	22N 04E 01BDC1S	80-06-03	2100	17060208	110ALVM	--
452501116101901	45 25 01	116 10 19	00	24N 02E 14DAC1S	80-06-03	1730	17060209	110ALVM	--
452427116013901	45 24 27	116 01 39	01	24N 04E 1VBCA1S	80-06-03	1840	--	--	--
				LEMHI					
451824114201801	45 18 24	114 20 18	03	23N 18E	80-08-06	1130	17060203	211IDAH	--
453014114275401	45 30 14	114 27 54	01	HORSE CR CAMPGROUND SP	80-08-06	1945	--	--	--
453012114274601	45 30 12	114 27 46	01	HORSE CR HOT SPRINGS	80-08-06	1915	--	--	--
452039114274801	45 20 39	114 27 48	01	OWL CR HOT SPRINGS	80-08-06	1500	--	--	--
443325113211001	44 33 25	113 21 10	01	14N 26E 10CBC1S	80-08-05	1920	--	--	--
443644113215001	44 36 44	113 21 50	01	15N 26E 21CAD1S	80-08-05	1830	--	--	--
644308114005601	44 43 08	114 00 56	00	16N 21E 18ADC1S	80-08-05	0930	17060203	111ALVM	--
445419113554301	44 54 19	113 55 43	01	18N 21E 12BCD1S	80-08-05	1200	--	--	--
445705114421501	44 57 05	114 42 15	01	19N 14E 26DDD1S	80-06-29	1500	--	--	--
450545113501001	45 05 45	113 50 10	01	20N 22E 03ABD1S	80-08-07	1030	17060203	122CLLS	--
450405114523001	45 04 05	114 52 30	01	20N 22E 17AAC1S	80-08-18	1730	--	--	--
450047113362001	45 00 47	113 36 20	00	20N 24E 34CCC1S	80-08-05	1630	17060204	122CLLS	--
452323114575301	45 23 23	114 57 53	01	24N 21E 22CDD1S	80-08-18	1900	--	--	--
				OWYHEE					
430704116174901	43 07 04	116 17 49	01	03S 01E 35DAC1	80-08-18	1530	17050103	112IDHO	300
430114116150801	43 01 14	116 15 08	01	05S 02E 05BCD1	80-08-29	1200	17050103	112IDHO	2009
430922116263401	43 09 22	116 26 34	01	03S 01W 15DCC1	80-08-21	1530	--	--	--
430734116301501	43 07 34	116 30 15	01	03S 01W 31BAA1	80-08-20	1545	--	--	--
430222116242901	43 02 22	116 24 29	01	04S 01W 25DCD1	80-08-18	1645	--	--	--
430603116160001	43 06 03	116 16 00	01	04S 02E 06CDA1	80-08-25	1700	--	--	--
430436116150501	43 04 36	116 15 05	01	04S 02E 17BCD1	80-08-25	1530	--	--	--
430332116145601	43 03 32	116 14 56	01	04S 02E 20CAC1	80-08-18	1400	17050103	112BRUN	--
430547116321601	43 05 47	116 32 16	01	04S 02W 11ABA1	80-08-20	1640	--	--	--
425820116210301	42 58 20	116 21 03	01	05S 01E 21CBD1	80-08-21	1345	--	--	--
430025116093801	43 00 25	116 09 38	01	05S 02E 12ACA1	80-08-20	1305	--	--	--
425939116055201	42 59 39	116 05 52	01	05S 03E 16AAD1	80-08-19	1530	--	--	--
425854116080801	42 58 54	116 08 08	01	05S 03E 20BBB1	80-08-21	1145	--	--	--
425854116054101	42 58 54	116 05 41	01	05S 03E 22BBH2	80-08-21	1045	--	--	--
425631116043501	42 56 31	116 04 35	01	05S 03E 34DDA1	80-09-09	1345	--	--	--
425636116025801	42 56 36	116 02 58	01	05S 03E 36CAC1	80-08-19	1400	--	--	--
425643116032801	42 56 43	116 03 28	01	05S 03E 36CHB1	80-09-09	1245	--	--	--
425222115470401	42 52 22	115 47 04	01	06E 06E 30DBB1	80-09-04	1500	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

STATION NUMBER	DATE OF SAMPLE	ELEV. OF LAND SURFACE DATUM (FT. NGVD)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT
					ELMORE						
425717115172501	80-09-11	--	586	8.9	36.0	6	0	2.0	.3	140	98
475224115190101	80-09-15	--	518	8.2	21.5	27	0	9.5	.7	100	88
425709115175101	80-09-15	--	849	7.6	15.5	300	0	80	24	65	32
					IDAHO						
453030115021801	80-08-19	--	225	9.5	45.5	4	0	1.5	.1	49	95
451339116110401	80-08-28	--	865	8.6	49.0	55	31	22	.1	150	84
451227116160501	80-06-03	--	56	6.5	5.5	23	15	5.8	2.0	2.5	19
451636115545301	80-06-03	--	226	9.7	45.0	4	0	1.5	<.1	45	95
452501116101901	80-06-03	--	832	9.4	41.0	17	0	6.3	.2	160	94
452427116013901	80-06-03	--	154	7.0	11.0	53	2	18	2.0	7.5	23
					LEMHI						
451824114201801	80-08-06	--	1020	7.6	94.0	12	0	4.9	<.1	220	93
453014114275401	80-08-06	--	47	6.4	12.0	16	0	4.2	1.4	3.1	29
453012114274601	80-08-06	--	193	9.0	39.0	7	0	2.6	.1	40	91
452039114274801	80-08-06	--	562	8.4	51.0	12	0	4.5	.1	120	93
443325113211001	80-08-05	--	168	8.7	9.5	78	0	16	9.2	2.7	7
443644113215001	80-08-05	--	332	8.0	23.5	120	0	29	11	19	25
444308114005601	80-08-05	--	760	7.9	45.5	28	0	9.4	1.0	160	89
445419113554301	80-08-05	--	510	7.8	45.0	250	120	73	16	4.9	4
445705114421501	80-06-29	--	246	9.4	47.0	7	0	2.8	<.0	50	93
450545113501001	80-08-07	--	1050	7.1	45.0	93	0	21	9.8	190	76
450405114523001	80-08-18	--	38	6.9	14.0	12	3	3.1	1.0	2.1	26
450047113362001	80-08-05	--	1270	8.0	63.5	14	0	5.8	<.0	270	96
452323114575301	80-08-18	--	158	6.7	7.5	66	8	18	5.1	5.4	15
					OWYHEE						
430704116174901	80-08-18	2340.00	465	7.9	22.5	140	0	41	9.5	33	32
430114116150801	80-08-29	2530.00	686	9.2	40.0	11	0	2.9	1.0	150	93
430922116263401	80-08-21	--	590	7.5	16.0	250	81	84	10	14	11
430734116301501	80-08-20	--	471	6.7	14.5	210	26	56	16	17	15
430222116242901	80-08-18	--	340	7.8	16.0	130	11	46	3.9	13	17
430603116160001	80-08-25	--	621	7.8	21.0	240	61	67	18	42	27
430436116150501	80-08-25	--	477	9.4	58.0	4	0	1.6	.0	100	97
430332116145601	80-08-18	--	1288	7.7	20.0	31	0	10	1.4	290	91
430547116321601	80-08-20	--	194	6.9	19.0	58	0	17	3.8	14	32
425820116210301	80-08-21	--	444	9.7	72.0	3	0	1.1	.1	100	98
430025116093801	80-08-20	--	1106	7.6	16.5	250	0	64	23	140	53
425939116055201	80-08-19	--	943	7.5	18.5	270	0	64	27	110	46
425854116080801	80-08-21	--	1130	7.5	26.5	53	0	16	3.2	230	86
425854116054101	80-08-21	--	715	7.8	19.0	230	36	46	27	55	33
425631116043501	80-09-09	--	3176	--	20.0	1200	920	350	77	320	37
425636116025801	80-08-19	--	590	7.7	19.0	66	0	22	2.8	90	71
425643116032801	80-09-09	--	562	--	23.5	54	0	18	2.3	91	75
425222115470401	80-09-04	--	641	7.7	22.5	180	0	52	12	67	43

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

STATION NUMBER	DATE OF SAMPLE	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)
					ELMORE						
425717115172501	80-09-11	24	.8	--	--	240	--	12	30	.9	37
475224115190101	80-09-15	8.4	1.6	--	--	150	--	63	22	.4	26
425709115175101	80-09-15	1.6	5.9	--	--	330	--	77	27	.1	36
					IDAHO						
453030115021801	80-08-19	10	.7	20	38	80	.0	12	2.7	.8	60
451339116110401	80-08-28	8.8	5.2	18	7	26	.1	310	14	2.5	51
451227116160501	80-06-03	.2	.8	10	0	8	5.1	.5	.2	.1	24
451636115545301	80-06-03	10	.9	15	46	89	.0	16	2.3	2.9	67
452501116101901	80-06-03	17	3.8	5	29	52	.0	290	5.6	.8	68
452427116013901	80-06-03	.4	2.4	73	0	60	12	22	.3	.0	23
					LEMHI						
451824114201801	80-08-06	27	17	490	0	402	20	45	31	16	150
453014114275401	80-08-06	.3	.4	27	0	22	19	4.1	.3	.3	15
453012114274601	80-08-06	6.6	1.1	54	16	71	.1	4.4	2.7	8.6	53
452039114274801	80-08-06	15	7.4	200	2	167	1.3	63	7.0	20	87
443325113211001	80-08-05	.1	.6	84	6	79	.3	2.4	1.9	.4	8.2
443644113215001	80-08-05	.8	3.8	150	0	123	2.3	32	9.9	.8	20
444308114005601	80-08-05	13	11	340	0	279	6.6	59	26	7.2	36
445419113554301	80-08-05	.1	2.5	160	0	131	4.0	120	1.5	.4	32
445705114421501	80-06-29	8.2	.8	32	22	63	.0	29	5.3	8.0	56
450545113501001	80-08-07	8.6	30	550	0	451	70	31	49	1.6	32
450405114523001	80-08-18	.3	1.1	16	0	13	2.2	.2	1.1	.1	16
450047113362001	80-08-05	31	17	470	0	385	7.4	150	54	11	100
452323114575301	80-08-18	.3	1.7	76	0	62	23	11	2.0	.2	17
					OWYHEE						
430704116174901	80-08-18	1.2	6.5	--	--	180	--	24	7.0	2.1	54
430114116150801	80-08-29	19	9.0	--	--	300	--	7.7	19	8.7	98
430922116263401	80-08-21	.4	2.6	--	--	170	--	77	21	.2	28
430734116301501	80-08-20	.5	6.9	--	--	180	--	54	7.3	.3	8.8
430222116242901	80-08-18	.5	5.1	--	--	120	--	52	5.9	.3	49
430603116160001	80-08-25	1.2	8.1	--	--	180	--	120	11	2.7	58
430436116150501	80-08-25	22	2.0	--	--	130	--	12	46	21	84
430332116145601	80-08-18	23	24	--	--	610	--	4.1	54	1.3	110
430547116321601	80-08-20	.8	4.8	--	--	67	--	21	4.6	.5	59
425820116210301	80-08-21	24	.9	--	--	120	--	46	15	1.5	77
430025116093801	80-08-20	3.8	13	--	--	390	--	130	41	.8	47
425939116055201	80-08-19	2.9	8.3	--	--	310	--	110	55	1.2	45
425854116080801	80-08-21	14	22	--	--	570	--	.8	30	.5	93
425854116054101	80-08-21	1.6	12	--	--	190	--	99	44	.6	46
425631116043501	80-09-09	4.0	11	--	--	270	--	1300	160	1.5	49
425636116025801	80-08-19	4.8	11	--	--	160	--	87	16	.6	76
425643116032801	80-09-09	5.4	10	--	--	170	--	64	20	.7	79
425222115470401	80-09-04	2.2	10	--	--	270	--	57	12	2.9	63

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

STATION NUMBER	DATE OF SAMPLE	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)
ELMORE						
425717115172501	80-09-11	367	.50	.00	.010	--
475224115190101	80-09-15	326	.44	2.8	.020	30
425709115175101	80-09-15	530	.72	3.8	.080	--
IDAHO						
453030115021801	80-08-19	175	.26	<.01	.010	--
451339116110401	80-08-28	572	.78	<.01	.030	--
451227116160501	80-06-03	41	.07	.04	.010	--
451636115545301	80-06-03	189	.13	.08	<.010	--
452501116101901	80-06-03	567	.77	.06	<.010	--
452427116013901	80-06-03	112	.15	.24	<.010	--
LEMHI						
451824114201801	80-08-06	725	.00	<.01	.010	--
453014114275401	80-08-06	42	.06	.12	.020	--
453012114274601	80-08-06	155	.22	.83	.010	--
452039114274801	80-08-06	409	.56	<.01	.010	--
443325113211001	80-08-05	89	.12	.12	.020	--
443644113215001	80-08-05	199	.27	.28	.020	--
444308114005601	80-08-05	477	.64	.02	.010	--
445419113554301	80-08-05	329	.45	.32	.010	--
445705114421501	80-06-29	190	--	1.1	<.010	--
450545113501001	80-08-07	636	.87	<.01	.020	--
450405114523001	80-08-18	34	.04	.14	.100	--
450047113362001	80-08-05	839	.00	.01	.010	--
452323114575301	80-08-18	98	.13	.29	.090	--
OWYHEE						
430704116174901	80-08-18	285	.39	.00	.030	--
430114116150801	80-06-29	478	.65	.00	.050	20
430922116263401	80-08-21	354	.48	3.3	.040	<10
430734116301501	80-08-20	276	.38	.36	.140	10
430222116242901	80-08-18	248	.34	.25	.040	--
430603116160001	80-08-25	437	.59	.34	.010	30
430436116150501	80-08-25	345	.47	.00	.010	--
430332116145601	80-08-18	862	1.17	.16	.050	--
430547116321601	80-08-20	166	.23	.11	.090	<10
425820116210301	80-08-21	314	.43	.00	.010	--
430025116093801	80-08-20	720	.98	6.0	.040	<10
425939116055201	80-08-19	616	.84	2.0	.110	<10
425854116080601	80-08-21	740	1.01	.00	.080	120
425854116054101	80-08-21	464	.63	4.6	.030	--
425631116043501	80-09-09	2540	3.45	24	.010	--
425636116025801	80-08-19	402	.55	.00	.030	--
425643116432801	80-09-09	388	.53	.00	.030	110
425222115470401	80-09-04	443	.60	.94	.020	10

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

STATION NUMBER	LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	LOCAL IDENT-I-FIER	DATE OF SAMPLE	TIME	HYDRO-LOGIC UNIT CODE	GEO-LOGIC UNIT	DEPTH OF WELL, TOTAL (FEET)
				OWYHEE					
425553115583201	42 55 53	115 58 32	01	06S 04E 03BCC1	80-09-11	1110	--	--	--
425424115564401	42 54 24	115 56 44	01	06S 04E 14ABC1	80-09-03	1140	--	--	--
425357115564801	42 53 57	115 56 48	01	06S 04E 14CAD1	80-09-03	1315	--	--	--
425135115561301	42 51 35	115 56 13	01	06S 04E 35ADD2	80-09-03	1430	--	--	--
425255115475001	42 52 55	115 47 50	01	06S 05E 24DDD1	80-09-04	1700	--	--	--
425248115475401	42 52 48	115 47 54	01	06S 05E 25AAA1	80-09-03	1600	--	--	--
425249115500401	42 52 49	115 50 04	01	06S 05E 26BBB1	80-09-04	1115	--	--	--
425225115495401	42 52 25	115 49 54	01	06S 05E 26BCD1	80-09-05	1430	--	--	--
425127115515501	42 51 27	115 51 55	01	06S 05E 33DBB1	80-08-27	1600	--	--	--
425438115425201	42 54 38	115 42 52	01	06S 06E 11CCC1	80-08-26	1120	--	--	--
425439115413801	42 54 39	115 41 38	01	06S 06E 12CCB1	80-08-26	1235	17050101	112OLFR	990
425255115473501	42 52 55	115 47 35	01	06S 06E 19CCD1	80-08-28	1145	--	--	--
425528115360701	42 55 28	115 36 07	01	06S 07E 03DDC1	80-08-26	1500	--	--	--
425518115391001	42 55 18	115 39 10	01	06S 07E 08BBA1	80-08-26	1400	17050101	112IDHO	365
425104115564401	42 51 04	115 56 44	01	07S 04E 02ABB1	80-08-29	1400	--	--	--
425012115541601	42 50 12	115 54 16	01	07S 05E 07ABB1	80-08-27	1500	17050102	121IDVD	1625
424932115534401	42 49 32	115 53 44	01	07S 05E 07DDA1	80-08-29	1500	--	--	--
424737115544801	42 47 37	115 54 48	01	07S 05E 19CCC1	80-08-27	1230	17050102	121IDVD	760
424708115522601	42 47 08	115 52 26	01	07S 05E 28CHB1	80-08-27	1400	--	--	--
425055115453301	42 50 55	115 45 33	01	07S 06E 05AAD1	80-09-04	1330	--	--	--
423736115433201	42 37 36	115 43 32	01	07S 06E 22DCC1	80-09-05	1115	--	--	--
423445116270501	42 34 45	116 27 05	01	09S 01W 04ADD1	80-08-19	1145	--	--	--
				VALLEY					
443124115165401	44 31 24	115 16 54	01	DAGGER CREEK H S	80-06-24	1230	--	--	--
445010114472601	44 50 10	114 47 26	01	HOSPITAL H S	80-06-29	1000	--	--	--
443403115414201	44 34 03	115 41 42	00	14N 06E 11BDA1S	80-06-02	1145	17060208	211IDAH	--
443841115413501	44 38 41	115 41 35	01	15N 06E 14ABB1S	80-06-06	1230	--	--	--
443804115424401	44 38 04	115 42 44	01	15N 06E 14CAC1S	80-06-02	1420	--	--	--
443747115451601	44 37 47	115 45 16	01	15N 06E 17DCC1S	80-06-06	1130	--	--	--
443806115113601	44 38 06	115 11 36	01	15N 10E 13CAB1S	80-06-26	1125	--	--	--
443740115115001	44 37 40	115 11 50	01	15N 10E 24BBB1S	80-06-25	1115	--	--	--
443638115161601	44 36 38	115 16 16	01	15N 10E 29BDA1S	80-06-24	1730	--	--	--
444301115421201	44 43 01	115 42 12	01	16N 06E 14CCC1S	80-06-04	1350	--	--	--
444349114592301	44 43 49	114 59 23	01	16N 12E 15BBB1S	80-06-28	1045	--	--	--
445048115414701	44 50 48	115 41 47	01	17N 06E 02BAB1S	80-06-04	1515	--	--	--
444614115394601	44 46 14	115 39 46	01	17N 07E 31BCB1S	80-06-05	1230	--	--	--
444535115070401	44 45 35	115 07 04	01	17N 11E 33DDC1S	80-06-27	0910	--	--	--
444658114514201	44 46 58	114 51 42	01	17N 13E 27ACC1S	80-06-28	1430	--	--	--
445450115431801	44 54 50	115 43 18	01	18N 06E 09ADC1S	80-06-04	1620	--	--	--
450107115425201	45 01 07	115 42 52	01	19N 06E 03BBD1S	80-06-05	1645	--	--	--
450417115475801	45 04 17	115 47 58	01	20N 05E 13BCC1S	80-08-26	1430	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

STATION NUMBER	DATE OF SAMPLE	ELEV. OF LAND SURFACE DATUM (FT. NGVD)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT
					OWYHEE						
425553115583201	80-09-11	--	1490	--	17.5	500	190	140	36	130	35
425424115564401	80-09-03	--	690	8.0	15.5	60	0	21	1.8	120	79
425357115564801	80-09-03	--	843	8.0	19.0	100	0	35	3.3	130	71
425135115561301	80-09-03	--	2890	7.0	16.5	1100	1000	310	84	250	32
425255115475001	80-09-04	--	988	8.0	21.5	130	0	48	3.2	160	70
425248115475401	80-09-03	--	995	7.4	16.5	340	0	88	28	42	21
425249115500401	80-09-04	--	1503	7.7	20.0	270	81	82	16	210	62
425225115495401	80-09-05	--	991	7.9	20.0	320	160	94	20	78	34
425127115515501	80-08-27	--	384	7.9	17.0	77	0	26	3.0	47	54
425438115425201	80-08-26	--	645	8.1	17.0	120	0	28	12	79	56
425439115413801	80-08-26	2510.00	841	8.0	37.0	27	0	10	.4	170	89
425255115473501	80-08-28	--	461	9.1	36.0	--	--	2.6	<.0	95	4
425528115360701	80-08-26	--	515	8.6	20.5	200	31	46	21	32	25
425518115391001	80-08-26	2765.00	1206	7.2	23.0	430	1	110	38	95	31
425104115564401	80-08-29	--	618	8.0	20.5	140	31	50	3.9	67	49
425012115541601	80-08-27	2604.00	278	8.8	39.0	17	0	6.3	.2	52	81
424932115534401	80-08-29	--	272	8.4	26.5	14	0	5.5	.0	49	81
424737115544801	80-08-27	2720.00	343	8.7	25.0	26	0	10	.2	62	78
424708115522601	80-08-27	--	267	7.9	27.0	23	0	7.9	.7	41	71
425055115453301	80-09-04	--	469	8.5	21.0	54	0	18	2.1	75	72
423736115433201	80-09-05	--	283	8.3	34.5	26	0	9.0	.8	48	75
423445116270501	80-08-19	--	88	6.8	12.0	24	0	6.3	2.1	4.8	27
					VALLEY						
443124115165401	80-06-24	--	277	9.9	42.0	5	0	2.1	<.0	59	95
445010114472601	80-06-29	--	422	8.9	46.0	8	0	3.4	<.0	90	95
443403115414201	80-06-02	--	465	9.1	88.5	4	0	1.7	<.0	95	98
443841115413501	80-06-06	--	309	9.3	59.0	4	0	1.6	<.0	76	97
443804115424401	80-06-02	--	298	9.4	57.0	7	0	2.4	.3	65	94
443747115451601	80-06-06	--	262	9.7	51.0	3	0	1.2	<.0	57	97
443806115113601	80-06-26	--	111	7.5	9.0	44	0	15	1.6	5.5	21
443740115115001	80-06-25	--	270	9.5	49.0	8	0	2.6	.3	55	93
443638115161601	80-06-24	--	282	9.4	50.0	5	0	2.0	<.0	63	95
444301115421201	80-06-04	--	140	7.7	20.5	11	0	4.0	.2	25	82
444349114592301	80-06-28	--	353	9.3	66.0	7	0	2.4	.2	75	95
445048115414701	80-06-04	--	267	9.6	47.0	4	0	1.4	<.0	53	96
444614115394601	80-06-05	--	343	9.7	35.0	4	0	1.6	.1	72	96
444535115070401	80-06-27	--	206	7.5	9.5	93	0	31	3.9	5.8	12
444658114514201	80-06-28	--	370	9.3	56.0	5	0	1.8	.0	84	97
445450115431801	80-06-04	--	299	9.3	62.0	4	0	1.5	.1	71	96
450107115425201	80-06-05	--	102	6.8	9.5	36	0	13	.8	6.6	28
450417115475801	80-08-26	--	417	9.0	31.5	7	0	2.6	.2	90	95

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

STATION NUMBER	DATE OF SAMPLE	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)
					OWYHEE						
425553115583201	80-09-11	2.5	17	--	--	310	--	370	72	.7	59
425424115564401	80-09-03	6.8	9.0	--	--	170	--	110	20	1.0	82
425357115564801	80-09-03	5.6	10	--	--	120	--	220	18	2.8	69
425135115561301	80-09-03	3.3	38	--	--	82	--	1400	130	1.5	4.5
425255115475001	80-09-04	6.0	12	--	--	290	--	160	27	.4	75
425248115475401	80-09-03	1.0	8.8	--	--	390	--	28	5.3	2.7	68
425249115500401	80-09-04	5.6	7.4	--	--	190	--	480	55	2.1	60
425225115495401	80-09-05	1.9	9.0	--	--	160	--	280	30	1.5	61
425127115515501	80-08-27	2.3	7.9	--	--	110	--	47	10	7.8	58
425438115425201	80-08-26	3.1	12	--	--	180	--	100	17	1.3	42
425439115413801	80-08-26	14	14	--	--	390	--	.6	18	6.2	110
425255115473501	80-08-28	--	3.8	--	--	100	--	36	9.8	27	75
425528115360701	80-08-26	1.0	4.9	--	--	170	--	51	26	.7	32
425518115391001	80-08-26	2.0	21	--	--	430	--	190	14	.8	82
425104115564401	80-08-29	2.5	10	--	--	110	--	140	20	3.1	67
425012115541601	80-08-27	5.6	7.6	--	--	73	--	19	9.1	11	80
424932115534401	80-08-29	5.8	9.1	--	--	73	--	23	8.8	13	80
424737115544801	80-08-27	5.3	6.8	--	--	75	--	35	11	13	100
424708115522601	80-08-27	3.8	11	--	--	66	--	22	9.7	8.2	83
425055115453301	80-09-04	4.5	7.3	--	--	140	--	50	11	1.1	72
423736115433201	80-09-05	4.1	6.6	--	--	92	--	16	12	.8	77
423445116270501	80-08-19	.4	3.3	--	--	34	--	1.1	1.7	.2	58
					VALLEY						
443124115165401	80-06-24	11	.8	15	26	56	.0	32	8.5	14	58
445010114472601	80-06-29	13	1.5	110	11	109	.3	41	14	21	52
443403115414201	80-06-02	20	.4	63	29	100	.2	41	15	16	100
443841115413501	80-06-06	16	1.4	41	34	90	.1	15	8.5	11	79
443804115424401	80-06-02	11	1.9	52	25	84	.1	15	11	3.0	74
443747115451601	80-06-06	14	.8	29	46	100	.0	4.6	2.2	2.6	68
443806115113601	80-06-26	.4	.7	63	0	52	3.0	2.8	.4	.2	16
443740115115001	80-06-25	8.6	1.0	10	30	58	.0	36	5.9	17	54
443638115161601	80-06-24	12	1.2	29	31	75	.1	31	6.9	15	65
444301115421201	80-06-04	3.3	.6	63	0	52	2.0	7.6	1.2	1.3	32
444349114592301	80-06-28	13	2.0	34	29	76	.1	48	8.1	15	77
445048115414701	80-06-04	12	1.1	32	35	85	.0	17	7.8	2.2	64
444614115394601	80-06-05	15	1.7	41	36	94	.0	32	10	10	68
444535115070401	80-06-27	.3	1.3	130	0	107	6.2	4.6	.4	--	10
444658114514201	80-06-28	17	1.4	46	31	89	.1	40	9.6	15	67
445450115431801	80-06-04	15	1.2	43	31	87	.1	20	11	2.4	74
450107115425201	80-06-05	.5	.8	56	0	46	14	2.7	.7	.2	31
450417115475801	80-08-26	14	2.7	61	19	82	.2	37	26	1.8	75

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

STATION NUMBER	DATE OF SAMPLE	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)
		OWYHEE				
425553115583201	80-09-11	1050	1.43	9.0	.030	--
425424115564401	80-09-03	468	.64	.10	.020	30
425357115564801	80-09-03	576	.78	3.4	.030	110
425135115561301	80-09-03	2280	3.10	3.3	.230	--
425255115475001	80-09-04	661	.90	.00	.020	90
425248115475401	80-09-03	514	.70	2.0	.030	--
425249115500401	80-09-04	1030	1.40	.24	.020	--
425225115495401	80-09-05	672	.91	.45	.000	--
425127115515501	80-08-27	273	.37	.00	.010	--
425438115425201	80-08-26	400	.54	.00	.140	--
425439115413801	80-08-26	565	.77	.00	.050	70
425255115473501	80-08-28	60	.08	.00	.010	<10
425528115360701	80-08-26	320	.44	.96	.040	--
425518115391001	80-06-26	812	1.10	.00	.020	1500
425104115564401	80-06-29	428	.58	.05	.010	70
425012115541601	80-06-27	230	.31	.24	.010	<10
424932115534401	80-06-29	232	.32	.00	.010	--
424737115544801	80-08-27	288	.39	.54	.010	20
424708115522601	80-08-27	224	.30	.26	.020	<10
425055115453301	80-09-04	321	.44	.00	.010	--
423736115433201	80-09-05	229	.31	.60	.010	410
423445116270501	80-08-19	102	.14	.81	.080	--
		VALLEY				
443124115165401	80-06-24	208	--	1.1	<.010	--
445010114472601	80-06-29	288	--	<.01	<.010	--
443403115414201	80-06-02	329	.49	.01	<.010	--
443841115413501	80-06-06	246	.17	<.01	<.010	--
443804115424401	80-06-02	224	.31	.24	<.010	--
443747115451601	80-06-06	197	.30	.03	<.010	--
443806115113601	80-06-26	73	.10	1.1	.050	--
443740115115001	80-06-25	207	.28	1.2	<.010	--
443638115161601	80-06-24	229	--	1.1	<.010	--
444301115421201	80-06-04	103	.14	.10	.030	--
444349114592301	80-06-28	273	.38	1.1	<.010	--
445048115414701	80-06-04	198	.15	.01	<.010	--
444614115394601	80-06-05	253	.37	.18	<.010	--
444535115070401	80-06-27	121	.19	1.4	<.010	--
444658114514201	80-06-28	272	.37	1.1	<.010	--
445450115431801	80-06-04	234	.35	.08	<.010	--
450107115425201	80-06-05	84	.11	.09	.020	--
450417115475801	80-08-26	285	.40	<.01	.010	--

ANALYSES OF SAMPLES AT SELECTED PRECIPITATION MONITORING SITES

PRECIPITATION QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

A precipitation-monitoring network was set up in August of the 1980 water year to monitor the effects of the May 18, 1980, eruption of Mt. St. Helens on the quality of precipitation in the area impacted by the ashfall associated with the eruption. Precipitation was collected during each storm event at five selected sites and analyzed for pH, specific conductance, and trace metals.

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH FIELD (UNITS)	HARD- NESS (MG/L AS CACO3)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SODIUM, DIS- SOLVED (MG/L AS NA)
433826116124500 - PRECIPITATION BOISE ID (LAT 43 38 26 LONG 116 12 45)						
SEP , 1980 11...	--	9	4.7	<1	.0	<.2
443410116023001 - PRECIPITATION CASCADE ID (LAT 44 34 10 LONG 116 02 30)						
SEP , 1980 13...	--	8	5.7	31	.0	<.2
19...	--	--	--	<1	--	--
464345117015001 - PRECIPITATION MOSCOW ID (LAT 46 43 45 LONG 117 01 50)						
AUG , 1980 17...	--	12	5.2	--	.3	<.2
SEP 20...	--	24	5.5	--	.0	<.2
474228116453501 - PRECIPITATION COEUR D ALENE ID (LAT 47 42 28 LONG 116 45 35)						
AUG , 1980 17...	--	16	4.5	--	.1	<.2
481648116342001 - PRECIPITATION SANDPOINT ID (LAT 48 16 48 LONG 116 34 20)						
AUG , 1980 17...	--	6	5.3	--	.1	<.2
SEP 20...	--	18	4.5	3	1.2	<.2

ANALYSES OF SAMPLES AT SELECTED PRECIPITATION MONITORING SITES

PRECIPITATION QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
433826116124500 - PRECIPITATION BOISE ID (LAT 43 38 26 LONG 116 12 45)							
SEP , 1980							
11...	<4	.1	<1	<10	<1	<6.0	<3
443410116023001 - PRECIPITATION CASCADE ID (LAT 44 34 10 LONG 116 02 30)							
SEP , 1980							
13...	<4	.1	18	<10	7	<6.0	240
464345117015001 - PRECIPITATION MOSCOW ID (LAT 46 43 45 LONG 117 01 50)							
AUG , 1980							
17...	<4	<.0	26	<10	3	<6.0	67
SEP							
20...	<4	<.0	6	<10	1	<6.0	12
474228116453501 - PRECIPITATION COEUR D ALENE ID (LAT 47 42 28 LONG 116 45 35)							
AUG , 1980							
17...	<4	<.0	16	<10	3	<6.0	6
481648116342001 - PRECIPITATION SANDPOINT ID (LAT 48 16 48 LONG 116 34 20)							
AUG , 1980							
17...	<4	<.0	6	<10	1	<6.0	10
SEP							
20...	<4	.0	27	<10	3	<6.0	11

PRECIPITATION QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CALCIUM DIS-SOLVED (MG/L AS CA)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)
433826116124500 - PRECIPITATION BOISE ID (LAT 43 38 26 LONG 116 12 45)								
SEP , 1980 11...	<2	<1	<1	.0	<3	<10	<10	<10
443410116023001 - PRECIPITATION CASCADE ID (LAT 44 34 10 LONG 116 02 30)								
SEP , 1980 13...	<2	<1	<1	12	<3	14	19	<10
464345117015001 - PRECIPITATION MOSCOW ID (LAT 46 43 45 LONG 117 01 50)								
AUG , 1980 17...	6	<1	<1	1.0	<3	<10	30	<10
SEP 20...	2	<1	1	1.5	<3	<10	<10	<10
474228116453501 - PRECIPITATION COEUR D ALENE ID (LAT 47 42 28 LONG 116 45 35)								
AUG , 1980 17...	4	<1	<1	.7	<3	<10	19	<10
481648116342001 - PRECIPITATION SANDPOINT ID (LAT 48 16 48 LONG 116 34 20)								
AUG , 1980 17...	4	<1	<1	.4	<3	<10	21	<10
SEP 20...	8	<1	<1	1.1	<3	<10	79	<10

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October 1, 1978

FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

Multiply inch-pound units	By	To obtain SI units
	Length	
inches (in)	2.54×10^{1}	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^{0}	kilometers (km)
	Area	
acres	4.047×10^{3}	square meters (m^2)
	4.047×10^{-1}	square hectometers (hm^2)
	4.047×10^{-3}	square kilometers (km^2)
square miles (mi^2)	2.590×10^{0}	square kilometers (km^2)
	Volume	
gallons (gal)	3.785×10^{0}	liters (L)
	3.785×10^{0}	cubic decimeters (dm^3)
	3.785×10^{-3}	cubic meters (m^3)
million gallons	3.785×10^{3}	cubic meters (m^3)
	3.785×10^{-3}	cubic hectometers (hm^3)
cubic feet (ft^3)	2.832×10^{1}	cubic decimeters (dm^3)
	2.832×10^{-2}	cubic meters (m^3)
cfs-days	2.447×10^{3}	cubic meters (m^3)
	2.447×10^{-3}	cubic hectometers (hm^3)
acre-feet (acre-ft)	1.233×10^{3}	cubic meters (m^3)
	1.233×10^{-3}	cubic hectometers (hm^3)
	1.233×10^{-6}	cubic kilometers (km^3)
	Flow	
cubic feet per second (ft^3/s)	2.832×10^{1}	liters per second (L/s)
	2.832×10^{1}	cubic decimeters per second (dm^3/s)
	2.832×10^{-2}	cubic meters per second (m^3/s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (L/s)
	6.309×10^{-2}	cubic decimeters per second (dm^3/s)
	6.309×10^{-5}	cubic meters per second (m^3/s)
million gallons per day	4.381×10^{1}	cubic decimeters per second (dm^3/s)
	4.381×10^{-2}	cubic meters per second (m^3/s)
	Mass	
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons